

THE
ECONOMIC JOURNAL

THE JOURNAL OF

The Royal Economic Society

EDITED BY
J. M. KEYNES

VOLUME XXIII

London
MACMILLAN AND CO., LIMITED
NEW YORK: THE MACMILLAN COMPANY
1913

ROYAL ECONOMIC SOCIETY

Patron—HIS MAJESTY THE KING.

Council:

THE RIGHT HON. VISCOUNT HALDANE OF CLOAN, F.R.S., *President.*

THE RIGHT HON. A. J. DALFOUR, M.P., F.R.S.

THE RIGHT HON. CHARLES BOOTH, F.R.S.

THE RIGHT HON. JAMES BRYCE, O.M., F.R.S.

THE RIGHT HON. LORD COURTNEY OF PENWITH.

DR. ALFRED MARSHALL, F.B.A.

THE RIGHT HON. VISCOUNT MILNER, K.C.B.

THE RIGHT HON. VISCOUNT MORLEY OF BLACKBURN, O.M., F.R.S.

Vice-Presidents.

Mr. W. M. ACWORTH.
Mr. G. ARMITAGE SMITH.
Professor W. J. ASHLEY (*Member of Editorial Board*).

Mr. ERNEST AVES.
Professor C. F. BASTABLE.
Dr. A. L. BOWLEY.
Professor EDWIN CANNAN (*Member of Editorial Board*).

Professor S. J. CHAPMAN.
The Ven. Archdeacon W. CUNNINGHAM,
F.B.A.

Majoi LEONARD DARWIN.
Professor F. Y. EDGEWORTH, F.B.A.
(*Chairman of Editorial Board*).

Sir T. H. ELLIOTT, K.C.B. (*Hon. Secretary*).
Mr. A. W. LUX.
Professor H. S. FOXWELL, F.B.A.
(*Hon. Secretary*).

Professor E. C. K. GONNER.
Mr. HENRY HIGGS, C.B.
Mrs. KNOWLES.
Mr. C. S. LOTH.
Sir J. MACDONELL, C.B.
Mr. BERNARD MALLET, C.B.
Professor J. S. NICHOLSON, F.B.A.
(*Member of Editorial Board*).

Sir R. H. INGLIS PALGRAVE, F.R.S.
The Rev. L. R. PHELPS.
Professor A. C. PIGOU.
Mr. L. L. PRICE (*Hon. Secretary*).
The Right Hon. HERBERT L. SAMUEL, M.P.
Sir FELIX SCHUSTER, Bart.
Professor WILLIAM SMART.
Mr. H. B. LEES SMITH, M.P.
Sir H. LLEWELLYN SMITH, K.C.B.
Mr. SIDNEY WEBB.
Mr. HARTLEY WITHERS.

Mr. ALFRED HOARE, *Hon. Treasurer.*
Mr. J. M. KEYNES, *Editor and Secretary.*
Mr. E. J. HICKS, *Asst. Secretary.*

Correspondents:

Prof. O. V. MULLER, for BOMBAY
(*Elphinstone College, Bombay*).
Mr. A. DUCKWORTH „ **NEW SOUTH WALES**
(*Australian Mutual Provident Society, Sydney*).
Prof. E. PHILIPPOVICH „ **AUSTRIA**
(*University of Vienna*).
Prof. E. MAHAIM „ **BELGIUM**
(*University of Liège*).
Prof. H. WESTERGAARD „ **DENMARK**
(*University of Copenhagen*).
Prof. CHARLES GIDE „ **FRANCE**
(*University of Paris*).
Prof. GUSTAV COHN „ **GERMANY**
(*University of Göttingen*).
Prof. A. ANDRÉADES „ **GREECE**
(*University of Athens*).

PRO LE BARON D'AULNIS DE BOURVILLE
for **HOLLAND** (*University of Utrecht*).
Prof. LOUIS LÁNG „ **HUNGARY**
(*University of Budapest*).
Prof. A. LORIA „ **ITALY**
(*University of Turin*).
Mr. JUICHI SOYEDA „ **JAPAN**
(*Industrial Bank of Japan, Tokyo*).
Prof. A. A. TSCHUPROW „ **RUSSIA**
(*Polytechnical Institute, St. Petersburg*).
Prof. R. A. LEHFELDT „ **SOUTH AFRICA**
(*Johannesburg*).
Prof. G. CASSEL „ **SWEDEN**
(*University of Stockholm*).
Prof. E. R. A. SELIGMAN „ **UNITED STATES**
(*Columbia University, New York*).

Applications for Fellowship should be addressed to the **SECRETARY**, Royal Economic Society, 9, Adelphi Terrace, London, W.C. The Annual Subscription is a Guinea (26½ francs). Any Fellow may compound for his future yearly payments by a Life Subscription of Ten Guineas (265 francs). There is at present no entrance fee.

Editorial Communications should be addressed to **J. M. KEYNES, Esq.**, King's College, Cambridge.

INDEX TO THE ECONOMIC JOURNAL

VOLUME XXIII

ORIGINAL ARTICLES :—

	PAGE
Ashley, Prof. W. J., Comparative Economic History and the English Land- lord	165
Bowley, A. L., The Census of Production	62
Bowley, A. L., Relation between Wholesale and Retail Prices of Food ...	514
Carr-Saunders, A. M., The Feeding and Medical Treatment of School Children	355
Chapman, Prof. S. J., The Utility of Income and Progressive Taxation ...	36
Chi Zang Waung, The Ancient Coins and Currency of China	524
Cohn, Prof. G., German Experiments in Fiscal Legislation	537
Cunison, J., The Incidence of National Insurance Contributions	367
Edgeworth, Prof. F. Y., Contributions to Theory of Railway Rates. IV. ...	206
Glatzer, I., A Successful Social Reformer, Ernst Abbe	329
Johnson, W. E., The Pure Theory of Utility Curves	485
Jones, J. H., Dumping and the Tinplate Industry	182
Keeling, F., The Casual Labour Problem	1
Lavington, F., The Social Interest in Speculation	53
Lehfeldt, Prof. R. A., Finance of Railway Nationalisation in Great Britain	340
McIlraith, J. W., Price Variations in New Zealand	348
Pigou, Prof. A. C., The Interdependence of different sources of Demand and Supply	25
Stamp, J. C., Incidence of Increment Duties	194
Tillyard, F., English Town Development... ..	547

REVIEWS :—

Ashley, Annie, <i>Social Policy of Bismarck</i> . By H. W. Macrosty	272
Babson and May, <i>Commercial Paper for Merchants</i> . By Benjamin White ...	588
Barbour, Sir David, <i>The Standard of Value</i> . By J. M. Keynes	390
Beard, C. A., <i>Economic Interpretation of the Constitution of the United States</i> . By W. H. Pringle	414
Beer, M., <i>Geschichte des Sozialismus in England</i> . By M. Epstein	276
Böhm-Bawerk, E. von <i>Positive Theorie des Kapitals</i> . By James Bonar ...	241
Brisco, N. A., <i>Economics of Business</i> . By L. R. Dicksee	613
Cadbury, E., <i>Experiments in Industrial Organisation</i> . By Prof. A. C. Pigou	116
Chapman, S. J., <i>Political Economy</i> . By P. H. Wicksteed	72
Chapman, S. J., <i>Elementary Economics</i> . By Harold Wright	427

REVIEWS (continued).—

	PAGE
Chatterton, Alfred, <i>Industrial Evolution in India</i> . By Sir James Wilson ...	252
Clark, J. B., and J. M., <i>The Control of Trusts</i> . By Prof. D. H. Macgregor	435
Cleveland, F. A., and Powell, P. W., <i>Railroad Finance</i> . By W. T. Stephenson ...	601
Collins, E. A., <i>Leasehold Emfranchisement</i> . By G. F. Shove ...	436
Copeland, M. T., <i>The Cotton Manufacturing Industry of the United States</i> . By H. W. Macrosty ...	255
Dehn, R. M. R., <i>The German Cotton Industry</i> . By H. W. Macrosty ...	594
Dibblee, G. B., <i>The Laws of Supply and Demand</i> . By H. D. Henderson ...	75
Einaudi, Luigi, <i>Intorno al concetto di Reddito Imponibile</i> . By Prof. A. C. Pigou ...	260
Éléwyck, E. Van, <i>La Banque Nationale de Belgique</i> . By F. Lavington ...	586
<i>Encyclopædia of Industrialism</i> . By Prof. D. H. Macgregor ...	265
Fauno, Marco, <i>Le Banche e il Mercato Monetario</i> . By C. Dozenraad ...	268
Farnam, H. W., <i>The Economic Utilisation of History</i> . By L. L. Price ...	412
Fay, C. R., <i>Co-partnership in Industry</i> . By Aneurin Williams ...	591
Fisher, Irving, <i>Elementary Principles of Economics</i> . By H. D. Henderson ...	246
Fleck, Anton A., <i>Kanada, Volkswirtschaftliche Grundlagen und Weltwirtschaftliche Beziehungen</i> . By H. W. Macrosty ...	265
Ford, James, <i>Co-operation in New England</i> . By H. W. Wolff ...	271
Foster, W., <i>The English Factories in India</i> . By C. Grant Robertson ...	402
Garr, Max., <i>Wirtschaftlichen Grundlagen des Modernen Zeitungswezens</i> . By Helène Reinherz ...	94
Gaskell, T. P., <i>Protection paves the Path of Prosperity</i> . By H. S. Furniss ...	611
Gibbon, I. G., <i>Medical Benefit in Germany and Denmark</i> . By N. B. Deane ...	117
Gill, Conrad, <i>The Naval Mutinies of 1797</i> . By F. M. Hardman ...	616
Glocker, T. W., <i>Government of American Trade Unions</i> . By F. Keeling ...	614
Guyot, Yves, <i>La gestion nor l'Etat et l'industrie</i> . By Douglas Knopp ...	108
Haase, A., <i>Die modernen Lösch- und Ladeneinrichtungen</i> . By F. A. Hall ...	432
Halévy, Élie, <i>Histoire du peuple juif au XIX^e siècle</i> . By C. R. Fay ...	277
Hawtrey, R. S., <i>Gold and Foreign Trade</i> . By Prof. A. C. Pigou ...	586
Heidborn, A., <i>Les Finances Ottomanes</i> . By M. Epstein ...	127
Higginson, J. H., <i>Tagiffs at Work</i> . By N. R. Dearle ...	429
Hirst, F. W., <i>The Six Panics</i> . By H. S. Furniss ...	609
Hobson, J. A., <i>Gold, Prices, and Wages</i> . By J. M. Keynes ...	393
Huart, A., <i>L'Organisation du Crédit en France</i> . By W. F. Spalding ...	583
Ischchanian, D., <i>Die ausländischen Elemente in der russischen Volkswirtschaft</i> . By H. W. Macrosty ...	433
Jackson, F. Huth, and others, <i>Lectures on British Commerce</i> . By Prof. W. J. Ashley ...	112
Kaufmann, A., <i>Theorie und Methoden der Statistik</i> . By A. L. Bowley ...	608
Keynes, J. M., <i>Indian Currency and Finance</i> . By Prof. H. S. Foxwell ...	561
Leaf, Walter, <i>Troy: A Study in Homeric Geography</i> . By C. P. Sanger ...	239
Lenz, Paul, <i>Die Konzentration im Seeschiffahrtsgewerbe</i> . By Douglas Knopp ...	267
Lethbridge, Sir Robert, <i>Indian Offer of Imperial Preference</i> . By Sir J. M. Douie ...	572
Levy, H., <i>Grundlagen des ökonomischen Liberalismus</i> . By L. K. Hyder ...	413
Liefmann, R., <i>Die Unternehmungsformen</i> . By H. W. Macrosty ...	109
Loria, Achille, <i>Les Bases économiques de la Justice internationale</i> . By Norman Angell ...	100
McCabe, D. A., <i>Standard Rate in American Trade Unions</i> . By F. Keeling ...	614
Mahaim, E., <i>Le Droit International Ouvrier</i> . By S. Sanger ...	422

REVIEWS (continued)—

	PAGE
Manes, A., <i>Das Versicherungswesen</i> . By A. F. Jack	606
Marriott, J. A. R., <i>French Revolution of 1848 in its Economic Aspect</i> . By C. R. Fay	406
Martin, E., <i>Histoire financière de l'Angleterre</i> . By L. L. Price	409
Mataja, Victor, <i>La Réclame</i> . By G. B. Dibblee	115
Moulton, H. G., <i>Waterways versus Railways</i> . By W. M. Acworth	89
O'Connor, O., and others, <i>San Francisco Relief Survey</i> . By Helène Reinherz	602
Ogburn, W. F., <i>Child-labor Legislation</i> . By F. Keeling	616
Passow, R., <i>Die gemischt privaten und öffentlichen Unternehmungen</i> . By Douglas Knoop	107
Pataud, E., and Pouget, E., <i>Syndicalism and the Co-operative Commonwealth</i> . By D. H. Robertson	420
Penson, T. H., <i>Economics of Everyday Life</i> . By N. B. Dearle	428
Pierson, N. G., <i>Principles of Economics</i> . Vol. II. By Prof. S. J. Chapman	70
Pigou, A. C., <i>Wealth and Welfare</i> . By Prof. F. Y. Edgeworth	62
Popper-Lyukeus, J., <i>Die allgemeine Nährpflicht als Lösung der sozialen Frage</i> . By M. Epstein	281
Preyer, W. D., <i>Die Arbeits- und Pachtgenossenschaften Italiens</i> . By H. W. Wolff	269
Prothero, R. E., <i>English Farming Past and Present</i> . By C. R. Fay	237
Raynaud, B., <i>Vers le Salaire Minimum</i> . By W. G. Constable	416
Reimers, C. E., <i>Die Deutschen Bühnen und ihre Angehörigen</i> . By Helène Reinherz	94
Ripley, W. Z., <i>Railroads: Rates and Regulations</i> . By W. M. Acworth	379
Robinson, E. V., <i>Railroad Taxation in Minnesota</i> . By J. C. Stamp	431
Robinson, M. F., <i>The Spirit of Association</i> . By L. L. Price	423
Ross, Lisa, <i>Weibliche Dienstboten und Dienstbotenhaltung in England</i> . By Helène Reinherz	280
Samaddar, J., <i>Ārthā Neeti</i> . By S. C. Das Gupta	578
Schmoller, Gustav, <i>Charakterbilder</i> . By Percy Ashley	249
Schumpeter, J., <i>Theorie der wirtschaftlichen Entwicklung</i> . By L. B. Naymier	105
Schwittau, G., <i>Die Formen des wirtschaftlichen Kampfes</i> . By M. Epstein	122
Scott, W. R., <i>Constitution and Finance of Joint-Stock Companies to 1720</i> . By J. H. Clapham	80
Sellers, Maud, <i>The York Memorandum Book</i> . By J. H. Clapham	278
Seligman, E. R. A., <i>Essays in Taxation</i> . By H. D. Henderson	387
Shelton, W. A., <i>The Lakes-to-the-Gulf Deep Waterway</i> . By W. M. Acworth	89
Silbergleit, Dr., <i>Kommunaler Fleischversorgung</i> . By C. W. Guillebaud	598
Singer, J., <i>Das Land der Monopole</i> . By H. W. Macrosty	596
Sombart, W., <i>Krieg und Capitalismus</i> . By J. H. Clapham	398
Sombart, W., <i>Luxus und Capitalismus</i> . By J. H. Clapham	398
Stevens, W. S., <i>Industrial Combinations and Trusts</i> . By Prof. D. H. Macgregor	263
Streightoff, F. H., <i>Distribution of Incomes in the United States</i> . By A. L. Bowley	425
Tawney, R. H., <i>The Agrarian Problem in the Sixteenth Century</i> . By Prof. W. J. Ashley	85
Thomson, Mary H., <i>Environment and Efficiency</i> . By H. W. Macrosty	272
Vineberg, G., <i>Provincial and Local Taxation in Canada</i> . By J. C. Stamp	126
Watney, C., and Little, J. A., <i>Industrial Warfare</i> . By W. G. Constable	124
Webb, M. de P., <i>Advance India!</i> By H. M. Ross	576
Webb, S., and B., <i>The Story of the King's Highway</i> . By Sir George Gibb and W. M. Acworth	227

INDEX

REVIEWS (continued)—

	PAGE
Webb, Sidney, Edited by, <i>Seasonal Trades</i> . By Prof. S. J. Chapman ...	119
Wicksell, Knut, <i>Vorlesungen über Nationalökonomie</i> . By Prof. A. O. Pigou ...	505
Winder, Phyllis D., <i>Public Feeding of Elementary School Children</i> . By H. W. Macrosty ...	272
Wolfe, F. E., <i>Admission to American Trade Unions</i> . By F. Keeling ...	614

NOTES AND MEMORANDA :—

Gibson, I. G., The Working of the Insurance Act ...	627
Mahaim, Prof. E., The General Strike in Belgium ...	294
Mortara, Prof. G., The Economic Revival of Messina ...	488
Moore, S. C., The Trades Board Act at Work ..	442
Ogilvie, A. M., A New History of the Post Office ...	187
Plunkett, Sir Horace, American Agricultural Commission ...	291
Raper, Prof. C. L., and Acworth, W. M., Professor Raper's "Railway Transportation" ...	299
Rees, J. Morgan, Wages and the Cost of Living in South Africa ...	180
Stamp, J. C., The Tax Experiment in Wisconsin ...	142
Stephenson, W. T., Railway and Canal Traffic Act, 1918 ...	296
Stockbroker, A., Depreciation of British Home Investments. II. ...	284
Wood, Frances, Index Numbers for Working Class Cost of Living ...	619

OFFICIAL PAPERS :—

Report of Departmental Committee on matters affecting Currency of the British West African Colonies and Protectorates. By J. M. Keynes ...	146
Report on Agricultural Credit and Co-Operation in Germany. By H. W. Wolff ...	304
Report of Departmental Committee on the Night Employment of Male Young Persons in Factories and Workshops. By F. Keeling ...	307
Report of the Committee of Inquiry into the Conditions of Employment in the Linen and other Making-up Trades of the North of Ireland. By G. Jebb ...	308
Report on Profit-Sharing and Co-Partnership. By E. Aves ...	447
Report of the Industrial Council. By A. Greenwood ...	449
Report on Conditions of Employment of Van Boys. By A. Greenwood ...	451
Report of the Chief Inspector of Factories and Workshops for the year 1912. By A. Greenwood ...	454
Report of an Inquiry by the Board of Trade into the Earnings and Hours of Workpeople in the United Kingdom. VIII. By N. B. Dearle ...	455
Report on Cost of Living. By M. Epstein ...	632

Other Official Papers ... 148, 309, 459, 635

NOTES ON CURRENT TOPICS ... 150-153, 312-318, 463-467, 639-644

RECENT PERIODICALS AND NEW BOOKS ... 154-164, 319-328, 468-482, 645

INDEX

REVIEWERS.

- Acworth, W. M., 89, 227, 379.
 Angell, Norman, 100.
 Ashley, Percy, 249.
 Ashley, Prof. W. J., 85, 112.
 Bonar, James, 241.
 Bowley, A. L., 425, 608.
 Chapman, Prof. S. J., 79, 119.
 Clapham, J. H., 80, 278, 398.
 Constable, W. G., 124, 416.
 Das Gupta, S. C., 378.
 Dearle, N. B., 117, 428, 429.
 Dibblee, G. B., 115.
 Dicksee, L. R., 613.
 Donic, Sir J. M., 572.
 Edgeworth, Prof. F. Y., 62.
 Epstein, M., 122, 127, 276, 281.
 Fay, C. E., 283, 277, 406.
 Foxwell, Prof. H. S., 561.
 Furniss, H. S., 609, 611.
 Gibb, Sir George, 227.
 Gillsband, C. W., 598.
 Hardman, F. M., 616.
 Henderson, H. D., 75, 246, 387.
 Howe, F. A., 482.
 Hyder, L. K., 413.
 Jack, A. F., 606.
 Keeling, F., 614, 616.
 Keynes, J. M., 390, 393.
 Knoop, Douglas, 107, 108, 267.
 Livingston, F., 586.
 Macgregor, Prof. D. H., 268, 265, 485.
 Macrosty, H. W., 109, 255, 265, 272, 482, 594, 596.
 Naylor, L. B., 106.
 Pigou, Prof. A. C., 116, 260, 580, 605.
 Price, L. L., 409, 412, 423.
 Pringle, W. H., 414.
 Reinherz, Miss H., 94, 280, 602.
 Robertson, C. Grant, 402.
 Robertson, D. H., 420.
 Ross, H. M., 576.
 Rozenraad, C., 268.
 Sanger, C. P., 239.
 Sanger, S., 422.
 Shove, G. F., 436.
 Spalding, W. F., 588.
 Stamp, J. C., 126, 481.
 Stephenson, W. T., 601.
 White, Benjamin, 588.
 Wicksteed, P. H., 72.
 Williams, Aneurin, 591.
 Wilson, Sir James, 252.
 Wolff, H. W., 269, 271.
 Wright, Harold, 427.

ERRATUM.

Page 62, lines 4 and 5, transpose "former" and "latter."

THE
ECONOMIC JOURNAL
VOLUME XXIII

THE ECONOMIC JOURNAL

MARCH, 1913

TOWARDS THE SOLUTION OF THE CASUAL LABOUR PROBLEM

THE Labour Exchanges Act was the first important legislative expression of the widespread and confident belief in this country that a deeper understanding of the problem of unemployment had at last been reached. Many hopes were centred upon the new organisation. Foremost among them was the expectation that it would prove the means of grappling with under-employment, which, in the new analysis of the phenomena of unemployment, had been more or less isolated as a distinct problem. The Labour Exchanges soon found themselves dealing with a large number of very short engagements of Labour. Some of these belonged to occupations such as dock labour, in which short engagements are more or less inherent in the nature of the work. After the first year of the operations of the Exchanges, an attempt was made to isolate the statistics of the casual labour trades in regard to the applications, vacancies and placings, by the institution of a special "casual register," subdivided into special sections, for casual employees such as the Liverpool cotton warehousemen, Manchester cloth porters, dock labourers, and sandwichmen. During 1911 the average number of persons on the casual register, to whom employment was given in each month, was 2,030, and the number of casual vacancies filled in the year was 125,304. The corresponding figures for 1912 are 3,799 and 266,622.

A large proportion of casual labour is not, however, massed in the specifically casual labour trades, but is scattered on the fringe, as it were, of almost every occupation skilled and unskilled. Many businesses frequently take on extra hands for a short period in order to cope with a mass of work. Such businesses as these and others are, either from the nature of the work or on account of the relatively high standing costs of machinery, in the

habit of filling up immediately the place of any worker, who is away temporarily owing to sickness or for any other cause. Thus a special class of "spare men" tends to arise, for example, around gas works, street cleansing departments, and tramways in all large towns. In Lancashire the "sick weaver" is a recognised institution,¹ and the Lancashire Labour Exchanges open at 5.45 a.m. on purpose to fill immediately the places of textile operatives who are absent when the factory opens.² Finally, there is inevitably a considerable proportion of engagements of labour which terminate after a very short period owing to the failure of the workman and employer to suit one another. Every Labour Exchange manager knows the type of workman, often peripatetic, who "can't keep a job," owing to some defect of character or (perhaps not infrequently) some streak of divine but, as things are, unfortunately placed, genius. And every local trade unionist (and, it is to be hoped, every Labour Exchange manager) knows the firm where the works manager or foreman has a rough tongue, or an instinctive dislike of standard rules, and where consequently "men will not stick it," and a considerable proportion of the work gets done only with the aid of newcomers ignorant of the firm's reputation.

All these various causes produce the phenomenon of casual employment in primarily regular occupations. Since 1911 the Board of Trade have recorded the number of situations for adults amongst those filled (included on the ordinary register), which are known to have been of less than one week's duration. The number was 86,048 in 1911, and 155,263 in 1912, being 18.2 and 24.0 per cent. respectively of all vacancies for adults filled in those years. These figures do not imply that the Exchanges are tending, or might tend, to encourage casual engagements of

¹ See, e.g., the report of a case before the Colne County Court with regard to the Insurance Contributions of "sick weavers."—*Manchester Guardian*, 15th January, and 13th February, 1913.

² In the Yorkshire woollen and worsted industries the employers are more willing to let a loom stand for a few hours or a day or so. This probably explains the fact that of the vacancies for adults filled by the Exchanges in 1912, a much larger proportion were known to be temporary, in the sense of being of less than a week's duration, in the cotton industry than in the woollen and worsted industries. The exact figures are as follows:—

	"Temporary," vacancies filled.	% of "temporary" to all vacancies filled.
Cotton	6616	26.6
Woollen and worsted ...	542	12.3
Other textiles	187	3.1

labour.¹ The increased proportion of temporary placings in 1912 is due to the operation of section 99 of the Insurance Act (see pp. 4 and 11, below), which has enabled the Exchanges in some places, particularly South Wales, to secure a control of the engagements of labour in the more casual branches of the insured trades, e.g., ship repairing.

It was recognised from the first that some special machinery would be needed for dealing with large bodies of casual labour. Merely to fill casual labour vacancies of this type through an ordinary Labour Exchange does almost nothing towards improving the condition of things, except in so far as it accustoms people to the use of the Exchange, and prepares the way for a more definite organisation and policy in the future. Special plans of organisation are needed for each large local mass of casual labour, where such exists, and for gathering together scattered fragments of casual labour, wherever this is possible. Any such special plans must deal with two essential points (though they may also include other methods of increasing regularity of employment). In the first place they must establish some method of controlling the influx of labour into a casual labour market. Secondly, they must endeavour to increase the mobility of labour within the market. The first special scheme for dealing with a mass of casual workers was applied to the Cloth Porters of Manchester. In the warehouse quarter of that city there are some hundreds of men (perhaps four or five hundred in all) who make a living almost entirely by loading and unloading cotton cloth from "lorries" in the street. They are taken on by the hour (and after the first hour by the half-hour). The normal wage is sevenpence an hour, but some of the "bleachers' porters," who have to carry heavier bales, receive ninepence or occasionally tenpence. The number of different employers appears to be considerably larger than the number of men, but many of the former may only require a man once in a few weeks. The number of those who, on the average, require at least one man once a week, is not very far in excess of a hundred. The demand for the men is partly caused by the fact that the police object to "lorries" standing in the streets longer than is absolutely necessary. Up to May, 1910, the men hung about the streets and the public-houses on the chance of a job. Employers or their representatives naturally got to know a certain number of

¹ The contention of Mr. J. St.G. Heath, in the *ECONOMIC JOURNAL* for September, 1910, that the German Labour Exchanges, through their ordinary operations, had probably encouraged casual engagements, was warmly denied in Germany. See *Der Arbeitsmarkt*, March, 1911, pp. 455-6.

more or less reliable men, and where these could usually be found. It would have been difficult to imagine a more purely casual system of employment. In May, 1910, however, 56 of the employers were persuaded by the Labour Exchange authorities to combine in supporting an attempt to organise the labour of the men. A special Labour Exchange (with a waiting-room, including a cheap temperance restaurant) was opened in the centre of the warehouse district. The 56 employers in the scheme agreed to send for their men to the exchange whenever they needed them, and to refuse to take men off the street. A man was only registered if he obtained a card from an employer containing a statement that he had been previously employed as a cloth porter. It was the general practice of employers to ask at the Exchange for a particular man, and to take others only if that man was not available. From the first the Exchange found itself sending the same men frequently two and even three times to different jobs during a single day. The number of firms using the Exchange increased steadily. The number of men applying for work at least once during each month varies greatly owing to a number of causes. The largest and smallest number was 513 and 228 in 1911, and 455 and 232 in 1912. The average number of men, for whom in each month work was found was 238 in 1910, 240 in 1911, and 264 in 1912. The total number of separate jobs provided in each month averaged 5,175 in 1911 and 5,160 in 1912. The number of days in each month on which each man worked, for whom employment was found at all, averaged 12 in 1910, 16½ in 1911, and 15 in 1912. It is said that, on the average, over 400 separate employers are now using the Exchange in each week.

Casual labour was discussed in Parliament on several occasions in connection with the Insurance Bill in 1911. Section 99 of the Act contains provisions which aim at facilitating the work of the Labour Exchanges in dealing with the problem. It lays down first that the Board of Trade may undertake through a Labour Exchange the duties of employers under the Act (*i.e.*, stamping cards, &c.), in respect of persons in their employ at the time when the arrangement was made or subsequently engaged by them through a Labour Exchange; and secondly, that in respect of such workmen different periods of employment of the same workmen or of different workmen may be counted as a continuous employment of a single workman, in so far as the employer's contributions for Unemployment (but not Health) insurance are concerned. Under the Unemployment (unlike the

Health) Insurance Scheme, each separate period of employment within a week (whether by the same employer or not) has to be accompanied by a separate contribution. Under the original draft of the Insurance Bill, the full contribution of 2½d. had to be paid both by the employer and by the workman in respect of each period. But the Act as finally passed provides that, if the period of employment does not exceed two days, only twopence each shall be paid by the employer and workman, and if it does not exceed one day only a penny shall be paid by each.

The net effect of these provisions in practice is to afford three inducements, which a Labour Exchange is enabled to offer employers, in order to induce them to engage their labour—and especially their casual labour—according to a definite plan. In the first place, it can offer to relieve the employer of a certain amount of trouble and expense (amounting in the case of the larger firms to the cost of one or two clerks) in keeping and stamping Health Insurance contribution cards and Unemployment Insurance books. Secondly, it can enable a group of employers to apportion the total cost of insurance contributions of both kinds amongst themselves, according to some plan which avoids the uncertainty, due to the fact that it may be more or less a matter of chance who happens to be the first employer of a casual worker in a week, and therefore has to pay the whole of his Health Insurance contribution. In the third place, the employer is offered a small direct financial advantage as far as concerns the contributions of men included in the Unemployment Insurance scheme. The Board of Trade has offered to employers of casual labour a fourth inducement to join in decasualisation schemes, which is perhaps of more far-reaching significance than any of the others. It has undertaken in more than one centre to pay wages on behalf of the employers, so that a casual worker employed by three or four employers during the week may draw all his wages at one place. A charge is made by the Board of Trade (in the form of a percentage, either on the employer's insurance contributions, or on the wages paid on his behalf), for the clerical work involved in stamping cards and (if this is also included) paying wages.

The arrangements offered by the Board of Trade in connection with the Insurance Act were applied to the existing Manchester Cloth Porters' casual labour scheme as soon as the Act came into operation. About eighty employers agreed to engage all their cloth porters through the special exchange, to share the

total cost of their Insurance contributions amongst themselves (roughly) in proportion to the number of hours of work which they provided for either one or several men,¹ and finally to pay all their wages through the Labour Exchange. The Board of Trade adds 25 per cent. to the amount charged to each employer for insurance contributions, as a set-off against the work done in keeping and stamping cards and paying wages. A short time ago it was found that the average amount charged to each employer for each man employed during the week was 1½d. The number of employers in the scheme has gradually increased to 116. The total amount of wages paid in each week varies from about £150 to £180. During the first week or two the men objected to receiving a weekly wage instead of casual payments in return for casual work. In order to meet this, employers continued to "sub" a portion of the money earned for a short time, but now the men are paid only on the Friday afternoon at the Exchange. The men are not compelled to leave their insurance contribution cards at the Exchange. About ten of them who work partly for firms outside the scheme carry their cards with them. And when (as frequently happens) a firm which is not in the combined wages scheme sends to the Exchange for a man, the man is given his card to take with him to the firm, if he has not worked previously during the week.

The number of men included in the Manchester Cloth Porters' scheme is not large; but the organisation is interesting, because it shows the lines on which even the most casual types of labour can be treated, and may form the model for many other such arrangements. The Liverpool Dockers, on the other hand, constitute one of what may now be termed the historic casual labour problems of the country, embracing about a hundred times as many men as are included among the Manchester Cloth Porters. From the time of the first establishment of the Labour Exchanges the officials had been in negotiation with the employers and with the men's representatives with the object of working out a suitable scheme. The whole position of affairs was, however, transformed by the Dock Strike of 1911. Till then the Union was more or less confined to the South End. After the strike every docker became a member of the Union, and the "Union Button" became a *sine qua non* of employment. The employers decided, moreover, to try the experiment of according complete recognition to the men's representatives, and a Dock Labour

¹ It is, however, arranged that an employer never pays more than 3d. for a man however many times he employs him, and no charge of less than 1d. is made.

Joint Committee was formed to deal with all questions of employment in the port. On this committee, in conjunction with the Board of Trade Labour Exchanges Divisional Officer, fell the duty of working out a scheme for organising the casual workers. The results of its investigations into the statistics of employment at the Liverpool docks were published in the form of a pamphlet by Mr. R. Williams, the Divisional Officer.¹ The chief facts ascertained in this inquiry were as follows. The total number of dockers (calculated from the Union records) was 27,200. The largest number applying for work at any one time on the docks during January, 1912, was 22,000. The total of the largest numbers employed by each firm on any day during that month was 28,514. But the largest number employed by all firms together in any one day of the month (the busiest known for many years) was 15,673. To obtain the total effective demand for labour on that day there must be added to this figure 3,901, representing men employed overtime or on night shift during the previous night, and 287, representing the shortage of men at various "stands." On every week-day of the month (excluding New Year's Day, on which many of the men are unwilling to work), there were actual surpluses of men at various "stands" amounting in all to from 2,435 to 4,990. But on every day (excluding New Year's Day and a day on which there were snowstorms) there were also at other "stands" shortages varying from 83 to 740. In the case of each of two large firms (from whom alone such particulars were published) the number of individual men paid wages at the end of each of the four weeks of the month was practically double the largest number employed by them on any one day of the same week.

The plan which was finally approved by the Joint Committee for the organisation of the labour of the port proposed that on and after July 15th, 1912, no man should be employed who did not hold a Board of Trade "tally" or metal disc. In the first instance, "tallies" were to be issued only to men who obtained the signature of a firm to a statement that they had been employed as dockers. Afterwards the issue of tallies, subject to the general supervision of the Joint Committee, was to be in the hands of six committees of representatives of employers and men for the six "Clearing House areas" into which it was proposed to divide the port. Thus a definite system of control of the influx of labour into the port was established. It was proposed to improve the mobility of labour in the following

¹ Reviewed in the ECONOMIC JOURNAL, June, 1912.

manner. The engagement of men was to take place primarily, as before, at the eighty or ninety different "stands" along the docks. But, as soon as a "stand" had been "called," the men who had not been engaged were to repair to one of sixteen "surplus stands," where a telephone box in charge of a Labour Exchange official was established. Any employer or foreman unable to obtain sufficient men could at once telephone to the nearest surplus stand or come and choose his men in person. The surplus stands were to be grouped and connected through the six Clearing Houses. These latter were also to serve as centres for the payment of wages. Out of 67 employers who came into the scheme, 46 agreed to pay all their wages through the Board of Trade. The remaining 21 consented to pay their wages at the Clearing Houses, but directly through one of their own clerks. The charge to employers for work in connection with paying wages and stamping cards was the same as in the Manchester scheme, viz., 25 per cent. on insurance contributions.

The scheme has now been in operation for over six months. There was some opposition from a section of the men at the commencement, resulting at Birkenhead in a strike which lasted some weeks. But the scheme is now generally accepted, since the advantages of a control of the influx of labour from the men's point of view have become clear. Three practical difficulties have arisen in the working of the scheme. In the first place, there is no doubt that a considerable proportion of the men are unwilling to take a full week's work even if they can get it. Consequently, although the number of men already registered is sufficient to work the port on its busiest day, there was actually during the end of 1912 a considerable shortage of labour on several occasions. In point of fact, the issue of "tallies" to fresh men has gone on fairly extensively since the starting of the scheme. The Clearing House Committees, which took over the control of this matter in October, 1912, appear generally to have adopted the principle that a "tally" should not be refused at any rate to any man who had previously worked as a docker, though there is considerable feeling against "tradesmen" coming to the docks for a spell of work while they are unable to obtain employment at their normal occupation. The total number of "tallies" issued up to the end of each month are as follows:—July, 19,107; August, 22,942; September, 24,861; October, 26,152; November, 27,266; December, 28,172; January, 29,648. At the end of October it was estimated that about 1,000 of the "tallies" issued represented "duplicates," i.e., were in the hands

of men who also possessed another "tally," and that at least 1,500 were held by men who were not altogether dependent upon the docks for a living.

These figures may be compared with the number of men who have worked during each week as shown by the total number of men paid wages either directly by employers or through the Board of Trade :—

Week ending.	No. paid wages.	Week ending.	No. paid wages.	Week ending.	No. paid wages.
20 July ...	14,849	28 Sept. ...	19,508	7 Dec. ...	21,370
27 " ...	16,271	5 Oct. ...	19,266	14 " ...	21,626
3 Aug. ...	16,491	12 " ...	20,015	21 " ...	21,165
10 " ...	16,379	19 " ...	20,345	28 " ...	20,600
17 " ...	18,303	26 " ...	20,423	4 Jan. ...	21,203
24 " ...	18,205	3 Nov. ...	20,428	11 " ...	22,504
31 " ...	18,308	9 " ...	20,754	18 " ...	21,779
7 Sept. ...	18,857	16 " ...	20,213	25 " ...	21,374
14 " ...	18,448	23 " ...	19,858	1 Feb. ...	21,506
21 " ...	18,961	30 " ...	20,957	8 " ...	21,239

The second difficulty which has appeared, since the scheme was started, has also tended to accentuate the shortage of men which has been experienced from time to time during the busy winter season. Neither the employers nor the men have really made proper use of the "surplus stands." It is true that a considerable number of men have been placed in work through their agency, the estimates for each month being as follows :—

July (15th—31st) ...	1,143	November ...	4,536
August ...	922	December ...	4,820
September ...	940	January ...	4,161
October ...	3,741	February (1st to 7th) ...	331

But these figures are not large compared with the total number of *daily* engagements of labour in the port. Men still tend to walk along the docks after the stands are called, if they are not engaged. And not a few, for no reason at all other than force of habit, will not work for more than one or at most two employers, and will stand idle rather than take temporary work elsewhere. At a recent Clearing House Committee meeting it was stated that cases of men failing to go to work, to which they had been sent from a "surplus stand," were not uncommon. Employers and foremen, too, sometimes refuse to make use of the "surplus stands" from prejudice, or, after telephoning to a "surplus stand," take on men whom they come across by accident, instead of waiting a few minutes for the men sent from the "surplus stand." All this human "economic friction" is exceedingly difficult to overcome.

The joint payment of wages also has not proved an easy

matter to organise on so large a scale. It is true that the number of firms who pay through the Board of Trade has increased, so that now only about a dozen are standing out and paying through their own clerks. But, although the proportion of wages "subbed" has never been so great in Liverpool as in other ports, such as Hull and Goole, the men refused to work on Saturdays unless they were paid for their work on the same day. It was found impossible for the Board of Trade (even with the aid of sixty supplementary clerks, who, along with a part of the regular staff, work all Friday night) to make up wages for the week beyond 5 p.m. on Friday. Consequently the employers have been compelled to give "subs" themselves to the men for work done on Saturday, in order to induce them to work at all, and have the trouble of conducting two distinct methods of paying wages side by side. The Board of Trade has not yet the satisfaction either of having established the weekly wage system on a firm basis, or of securing a complete record of the employment and wages earned by the men.

At the Goole docks a scheme on practically the same lines as that at Liverpool was also started when the Insurance Act came into operation. The chief formal differences are that (as is natural in a smaller port) there are no subordinate committees under the Joint Committee of employers and men, which was constituted specially by the Board of Trade, and that the employers' payments towards the cost of the scheme are calculated at the rate of a half per cent. on wages instead of 25 per cent. on insurance contributions. There are only five employers of dock labour in the port. Wages in Goole are calculated by the hour, and there is no minimum of a half-day's engagement, as in Liverpool. "Subbing" has always been general. But it has been arranged that "subs" as well as the balance of the weekly wage shall be paid at the Board of Trade offices (of which there are two, on opposite sides of the harbour) on the presentation of a pay ticket from the firm. The number of tallies issued up to the end of each month since the starting of the scheme has been as follows :—

July	1047	September... ..	1263	November	1393
August	1164	October	1303	December	1457

The number of men who received wages in each week and the variations in the amount paid is indicated in the following table :—

(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
25 July ...	935	93.7	40.8	24 Oct. ...	942	110.5	45.0
1 Aug. ...	853	87.7	42.8	31 „ ...	999	116.1	43.6
8 „ ...	892	87.9	43.6	7 Nov. ...	946	112.8	46.6
15 „ ...	939	92.2	42.8	14 „ ...	942	122.1	48.2
22 „ ...	907	88.7	45.1	21 „ ...	1,017	112.2	51.0
29 „ ...	903	71.8	45.3	28 „ ...	1,087	113.0	48.6
5 Sept. ...	878	94.1	42.2	5 Dec. ...	1,093	103.1	47.8
12 „ ...	905	81.1	43.8	12 „ ...	1,097	111.7	49.0
19 „ ...	915	93.6	44.9	19 „ ...	981	110.5	50.2
26 „ ...	866	91.5	44.3	24 „ ...	1,087	80.9	61.1
3 Oct. ...	898	105.0	43.4	2 Jan. ...	1,111	104.1	49.0
10 „ ...	966	93.9	44.3	9 „ ...	958	112.0	45.3
17 „ ...	921	101.1	44.2	16 „ ...	1,052	98.0	44.9

Col. (1)=pay day. Col. (2)=number of men paid. Col. (3)=percentage of average individual wage during each separate week to average individual weekly wage during the whole 26 weeks. Col. (4)=the percentage of the total wages "subbed" during each week.

In Sunderland there is a scheme in operation under section 99 of the Insurance Act, without any arrangements for joint pays, covering a few hundred dockers. Negotiations in several other ports have not yet resulted in the execution of any plans. In London the duty of regularising the labour of the port was laid by section 28 of the Port of London Act of 1908 upon the Port Authority, which has, however, power to act through other bodies, such as the Board of Trade Labour Exchanges. The Port Authority claims that it has done something to decasualise labour; but during the Dock Strike in the summer of 1912 many complaints were made in Parliament and elsewhere that practically nothing had been done to carry out the instructions contained in the Act. Various circumstances, including the geographical arrangement of the docks and wharves, and the peculiar circumstances obtaining in the relations of the men's organisations to the employers and the Port Authority undoubtedly render the execution of any effective and comprehensive scheme in London exceedingly difficult at the moment. In Cardiff, Swansea, Barry, and Port Talbot there are schemes in operation under section 99 of the Insurance Act for ship repairers,¹ embracing altogether 33 employers and about 6,000 men. In various other places the Board of Trade has made arrangements with groups of employers under section 99, and altogether nearly 130,000 men appear to be covered by such schemes. But probably not more than about 30 per cent. of these are casual workers, in the sense of being habitually engaged for periods of

¹ Who are, of course, unlike the docker, included in the Unemployment Insurance scheme.

less than a week. A considerable number of them are, however, engaged in seasonal trades. In Leicester, for example, practically the whole of the employers in the building trades have made arrangements under section 99 with the Labour Exchange covering some 2,000 men. In Liverpool a special Labour Exchange has since June, 1910, secured the great bulk of the engagements of cotton warehousemen without the aid of a scheme under section 99. The number of these men normally varies from about 4,000 in the busiest time of the winter to something like 1,500 in the slackest time in the summer. But the work is not purely casual to a very large extent.

It is interesting to compare these schemes, which have been developed entirely with the object of attempting to counteract the effects of casual labour, with the organisation which the employers of dock labour in Hamburg have built up from purely business motives, with the object of securing as efficient a supply of labour as possible. In May, 1907, there was a strike amongst the "shipmen."¹ The Port Employers' Association imported altogether 9,022 blacklegs (of whom 5,916 came from England), and succeeded in completely breaking the strike with the aid of these men. They then determined to place the whole organisation of labour in the port on a better basis. The foundation of the new system was to be 2,000 "Kontraktarbeiter" engaged by the Association on a monthly contract, but hired out to individual firms, who had to guarantee them at least a 30s. minimum wage, though, apart from this guarantee, they were to be paid for the time during which they actually worked. It was found, however, in practice, to be impossible to raise the number of "Kontraktarbeiter" to more than about 1,150, as long as individual firms had to guarantee the minimum wage of all the men whom they took. An interesting device was therefore adopted in 1910 in order to increase the number of "Kontraktarbeiter." A number of the larger steamship lines agreed to take an additional number of "Kontraktarbeiter" on condition that they might give notice at midday on any day that the men would not be required on the following day. These firms undertook jointly, through the Employers' Association, to find the men work elsewhere, or guarantee the minimum wage. This plan enabled the number of "Kontraktarbeiter" to be raised from 1,165 at the end of 1909 to 1,463 at the end of 1910. Twenty-

¹ The Liverpool term "shipmen" is used in this article as the best English equivalent of the German "Schauerleute." The "shipmen" both stow and unload cargo, as distinguished from the quay porters who work on shore.

three out of fifty-three employers of "shipmen" employ at least a few "Kontraktarbeiter."

It may be mentioned that there are certain features about the position of the "Kontraktarbeiter" which make the whole system odious to the German Transport Workers' Union. The system was introduced definitely with the object of minimising the chances of another strike. The men have from one to three shillings deducted from their wages each week according to the amount of their earnings. This amount is placed to their credit in a savings bank. If they break their contract the whole amount is forfeited, and in any case they can only take out from their account one-half of what they have standing to their credit above £10. That there is some weakness in the position from the point of view of relations between employer and employed would seem to be indicated by the fact that nearly a third of the whole number of "Kontraktarbeiter" leave the service of the Port Employers' Association each year, in spite of the economic security which is offered. The following table shows the years of engagement of the "Kontraktarbeiter" who remained in the service of the Employers' Association at the end of 1911:—

No. at end of 1911.	Engaged during				
	1907.	1908.	1909.	1910.	1911.
1446	204	262	140	325	495

But the ulterior objects of the employers, the relations of the "Kontraktarbeiter" to trade union labour and the compulsory thrift, are incidentals from the point of view of the system as an experiment in the technique of organising the labour market. The nature of the machinery, not the spirit in which or the authority by whom it may be operated, is at the moment the important consideration.

The whole of the Hamburg "shipmen," other than the "Kontraktarbeiter," are engaged not merely through, but actually at, five branch Labour Exchanges situated round the harbour and conducted by the Employers' Association. Preference is given to men holding cards issued by the Association and known as "Hilfsarbeiter." Only when no single "Hilfsarbeiter" is available can a "Gelegenheitsarbeiter," or casual, be engaged. Any man is free to go and take his chance at a "Gelegenheitsarbeiter" at one particular Labour Exchange, from which alone casual "shipmen" are sent. An employer or foreman who wishes to engage men takes one of two courses. He can go and pick his men at a Labour Exchange, in which case an official of the Association stands by, takes the registration cards from the men who are

he can earn relatively large sums of money in a short space of time. In the second place, if the employers of a port require on the average (say) 7,000 men, but on twenty or thirty days of the year require up to 12,000, they have no right to complain if on any particular day 12,000 men cannot be obtained. *If the employers of a port state that they require a certain normal maximum of men, then they should pay for their labour at such a rate and in such a manner that the total sum of wages is sufficient to provide a fair wage all the year round for each of those men, except in so far as the Government is able, through its Labour Exchanges, to find other work for some (or all) of them when they are not required for port employment.* This may seem a bold proposition. But it is absolutely certain that nothing short of its recognition in practice can save the port employers of this country from the reproach of conducting an industry, which is as certainly and definitely parasitic as was agriculture in southern England under the old Poor Law.

In point of fact, of course, there is already a considerable amount of "dovetailing" of casual dock labour with other employments, and with the aid of organisation such "dovetailing" could be improved.¹ Such holdings or allotments may, in some places, provide a certain amount of subsidiary work for dockers.

In dealing with the question of the *mobility* of casual labour, it is as important to enable a certain proportion of the labour to move in and out of a given market with ease as it is to make all the labour within the market mobile. On both these points hints may be gained from the Hamburg organisation. It is certainly better to meet the occasional specially large demands for labour, above what may be termed the normal maximum, by importing extra men when the supply of ordinary registered men is insufficient, than to go on registering men indefinitely. The Labour Exchanges of the Hamburg Port Employers' Association are, of course, not connected with any outside system of exchanges. By bringing extra casuals into the scheme, they therefore incur the disadvantage of keeping "stagnant pools" of labour on the fringe of the system. But in any English casual labour scheme the natural course of procedure, if extra men were temporarily required, would be to take them, not direct from the streets, but from the registers of the ordinary Government Labour Exchanges, so that there would be as much

¹ Though unfortunately in Liverpool there is no sufficiently large quantity of seasonal labour in the summer to balance the busy winter season of the cotton warehousemen and dockers.

opportunity as possible of "dove-tailing" the work with other occupations. In dealing with the mobility of labour within the market in the Liverpool and Goole schemes¹ the Board of Trade (no doubt wisely) abandoned any attempt to introduce any fundamental alterations in the methods of engaging men at the outset. In Liverpool the eighty or ninety separate stands, with the accompanying system of "Umschau" (as the Germans call the unorganised search for work), still exists. The surplus stands cannot yet be said to have achieved a great deal in the way of altering it. The two Board of Trade waiting-rooms in Goole are, perhaps, rather more successful as centres from which men are summoned to work. But the almost perfect system of control of engagements of labour in the Hamburg Employers' Labour Exchanges is certainly far in advance of anything in England, and seems to dispose of the arguments as to the impracticability of reducing the number of places where men may be taken on.² What German employers can do in their own interest in Hamburg, English employers can do in the public (if not in their own) interest in Liverpool, London, Glasgow, or Hull. As regards the employment of dockers at different classes of work (such as stevedoring, unloading, and portering), there is great variety of practice, both in English and in German ports. Obviously, the fewer the barriers between the different classes of work the better. Probably the greatest difficulty in arranging for men to be transferred from one to another is the fact that the rates of wages differ so widely.

The arrangements for joint weekly pays, which are being organised by the Board of Trade, are undoubtedly valuable. Some of the dockers' leaders hold emphatically that "human nature being what it is," the system of daily pays or unlimited "subbing" does not conduce to the expenditure of the docker's income in the best interests of himself and his family. Joint weekly pays are thus a step in advance. But what is really needed is a guaranteed weekly wage for the docker. No satisfactory solution of the problem will be found until a man, who does not receive a weekly minimum wage from a single employer, can only be hired through a public authority on such terms as would enable it taking into account such periods of employment as it could obtain for him in other occupations, to procure him a regular weekly wage of a reasonable amount. It has been

¹ But not in the little Manchester cloth porters' scheme.

² Although the Port of Hamburg, owing to its geographical arrangement, lends itself to schemes for organising labour more easily than London or Liverpool.

suggested that the scheme of compulsory Unemployment Insurance should be extended to dock labour. But it seems to the present writer that a somewhat different method of averaging wages would be preferable in this case. Such a method should, if possible, radically alter the psychological *milieu* into which the average casual worker is forced by the gamble for employment. All men who are not paid regular weekly wages by individual firms should be organised into a corps or guild, which might in some cases be established by the local authority, and managed in detail by a committee representative of it, together with the dockers and their employers. In this, or some such way, men must be paid for waiting as well as for working. Then, and then only, will it be possible to require regular attendance at centres of engagement, and to avoid both unnecessary shortages of labour and the existence of an excessive outer fringe of casual workers. Probably no plan of Labour Exchanges, unaccompanied by a revision of the system of remuneration, will form by itself an adequate basis for the effective organisation of the casual labour market, though no doubt such plans may in practice prepare the way usefully for further organisation.

Needless to say, the whole problem bristles with difficulties. Whether, as things are, there is sufficient readiness among the public, the employers, or the dockers, to grasp both the essential rights and wrongs and the essential practical necessities of the situation, remains to be seen. Perhaps there is not. Perhaps the tragedy of those whom "no man hath hired" will continue to be enacted year after year under early morning skies in the great half moons of men, which make up the "stands" along the Liverpool docks. But the efforts of the representatives of employers and men and of the Board of Trade, especially in Liverpool, have made the outlook a little more hopeful. England may yet give effective and practical recognition to the principle that even among dockers "they also serve who only stand and wait."

FREDERIC. KEELING

THE INTERDEPENDENCE OF DIFFERENT SOURCES OF DEMAND AND SUPPLY IN A MARKET.

§ 1. In the treatment of some economic problems it is sufficient to know the equations representing the demand schedule and the supply schedule of a market as a whole. Other problems, however, cannot be solved, unless we also know the relation that subsists between the aggregated demand or supply schedule and the demand or supply schedules, if such exist, of the separate sources of demand or supply, of which the market is compounded. For the purpose of elementary discussion it is usual to assume that an aggregated demand or supply schedule is always made up by the simple addition of a number of independent demand or supply schedules belonging to these separate sources. It is obvious that, when this assumption is made, the demand schedule of every source of demand can be represented by a plane curve, and the demand schedule of the market by a further curve obtained by the simple compounding of the curves representing the several sources; and that the same proposition holds good as regards supply. I wish to inquire in what circumstances the above assumption adequately conforms to the facts, and, when it does not so conform, what alternative assumption ought to be substituted for it.

§ 2. On the side of demand, the assumption seems to be fully warranted as regards commodities that are desired wholly for the direct satisfaction yielded by them, and not at all for the indirect satisfaction which their possession contributes through our thirst for reputation or distinction. On the side of supply, it seems to be fully warranted in respect of agriculture and the extractive industries, so far as these are carried on under conditions such that the part played by transportation, and, therewith, the rôle of "external economies" is unimportant. Furthermore, even when the assumption is not *fully* warranted, it may, nevertheless, be warranted for the limited purpose of the analysis of a particular group of problems—those, namely, which relate to disturbances of equilibrium so small that the aggregate output or consumption

of the commodity affected is not greatly changed. Thus, as regards demand, it is reasonable to suppose that a considerable change in aggregate consumption is necessary to make people aware that any change in "commonness" has taken place, and, hence, to affect that part of anybody's demand which turns upon the reputation-value of the commodity.¹ Similarly, as regards supply, a considerable change in aggregate output would have to come about before the general organisation and external economies of an industry were appreciably affected. Analytically, the point may be stated thus. Though the quantity of commodity demanded (or supplied) at a price p in a market consisting of several sources cannot be approximately represented by the expression

$$f_1p + f_2p + \dots$$

yet the *change* in the quantity demanded (or supplied) in that market in consequence of a *small* change of price Δp , can be approximately represented by the expression

$$\Delta p[f'_1p + f'_2p + \dots]$$

In short, certain relevant variables may fairly be regarded as constants from the standpoint of small changes.

§ 3. In what has just been said the two most obvious influences, whose operation sometimes renders our fundamental assumption inapplicable to real life, have been implicitly indicated. As regards demand, the essential matter is that people do, in fact, desire many things, not merely for their own sake, but, in the main, on account of the reputation or distinction which the possession of them confers. Thus, J. S. Mill wrote: "When once the means of living have been obtained, the far greater part of the remaining labour and effort which takes place on the earth has for its object to acquire the respect or the favourable regard of mankind; to be looked up to, or, at all events, not to be looked down upon by them. The industrial and commercial activities which advance civilisation, the frivolity, prodigality and selfish thirst of aggrandisement which retard it, flow equally from that source." To it, we may add, are due, in great measure, at once the desire for political success in England and business success in America, expenditure on personal adornment and on philanthropic work, the concealment of inventions for profit and the revealing of them for fame,² the purchase of pictures for the home and the presentation of pictures to public galleries. The consequence of this fact from our present point of view is obvious. The quantity of a

¹ Cf. my paper *Some Remarks on Utility*, ECONOMIC JOURNAL, Vol. xiii. p. 65.

² Mill, *Three Essays on Religion*, p. 87. Cf. also Marshall, *Principles of Economics*, p. 162.

³ Cf. Chapman on American and English methods, *Work and Wages*, p. 41.

distinction-bearing article that anyone demands at a given price depends, not merely on the price, but also on the extent to which it is "the thing" to buy that article, and thus, indirectly upon the quantity that people in general are buying. As regards supply, the essential matter is "external economies." Where circumstances are such that organisation and so forth can be much bettered when the aggregate scale of an industry is large than when it is small, the quantity of the commodity that anyone supplies at a given price depends, not merely on the price, but also on the quantity that people in general are supplying.

§ 4. In circumstances of the kind just described, it is evident that, though the demand (or supply) schedule of the market can be represented by a plane curve, the demand (or supply) schedules of the separate sources that make up the market cannot be so represented, and cannot be simply added together to constitute the aggregated demand (or supply) schedule. It, therefore, becomes necessary to inquire whether, in these cases, any other assumption of a reasonably simple nature can be employed, instead of the assumption of independent individual schedules with which we have hitherto worked. One such assumption readily suggests itself. It is to the effect that the price at which anybody demands (or supplies) a given quantity of commodity is made up by the addition of two parts, one depending on the quantity that the person in question himself demands (or supplies) and the other upon the quantity that the whole market collectively demands (or supplies). On this assumption, if p be the price, y the aggregate quantity demanded (or supplied), and y_r the quantity demanded (or supplied) in the r^{th} source,

$$p = \phi y_r + \psi y.$$

This formula is readily translated into the language of diagrams. The situation is the same as it would be if the commodity in question consisted of two physical constituents. For one of the constituents the market demand (or supply) curve is already in being, since the demand (or supply) price is known to depend in a definite manner on the aggregate amount. The other constituent is demanded (or supplied) by the several sources in such a way that the demand (or supply) price in each source depends solely upon the amount in that source. The market demand (or supply) curve for the second constituent is thus found by a simple addition of the curves for the several sources. We have only then to superimpose the curve for this second constituent upon that for the first, to find the complete market curve for the commodity. The question we have now to ask is: Does the assumption just described represent the facts of life closely enough to

be of practical value in any of those cases to which, as we have seen, the simple assumption proper to elementary discussion is inapplicable?

§ 5. I suggest that, on the side of supply, a field is available to which this assumption is not, indeed, perfectly adapted, but is sufficiently adapted to yield some fruitful results. In applying it to this field, we are, it must be granted, ignoring the fact that the effect on the supply price of the r^{th} source of supply brought about by a given change in the output of that source may itself be different, according as the aggregate output of the whole market is large or small. Nevertheless, we are approaching much more nearly to real life than we are permitted to do by the method usually adopted. In particular, we are enabled to fit our analysis more closely to the difficult problem of increasing returns. On the ordinary method, a market schedule indicative of increasing returns must be made up of a number of schedules of independent sources, some, at least, of which also indicate increasing returns. A system of that kind, however, is necessarily in unstable equilibrium. Apart from obstructions due to the time element, to which Dr. Marshall has called attention, it would seem that one of the suppliers must drive all the others out of the market. In real life, however, as Professor Chapman has well emphasised,¹ when the commodity is one whose production requires the help of subsidiary industries—a need attaching to all increasing return commodities—the separate sources are not really independent, and the presence of increasing returns in the market as a whole does not really imply its presence in the parts. In the phraseology employed above, the “constituent” of the commodity, which the sources produce independently, may obey the law of diminishing returns in all the sources for any aggregate of production, while the other “constituent” obeys the law of increasing returns rapidly enough to give the character of increasing returns to the supply schedule of the two constituents jointly. It is, thus, seen that the apparent conflict between mathematical analysis and experience, which has often perplexed the treatment of increasing returns, may disappear even without reference to the time element, if the assumptions from which the mathematical analysis starts are brought more nearly into conformity with the facts.

§ 6. For the sake of symmetry and formal niceness, it is much to be wished that the formula, which is thus seen to have value as regards complex supply, could also be fitted, without too serious violence to reality, to the facts of complex demand. Unfortunately, however, it must be confessed that this cannot be done.

¹ ECONOMIC JOURNAL, June, 1905, p. 191.

First, in order that the formula may be applicable, the group of demanders making up a market must be so far homogeneous that the desire for the possession of a unit of commodity on account of its distinction-bearing quality, when a given aggregate of it is being consumed, has the same money value to each member of the group; and this condition is obviously unlikely to be fulfilled. Secondly, the formula implies that the "part" of a man's demand price, which does not depend on the quantity of a commodity that he is purchasing, depends simply on the aggregate quantity that the market is purchasing. This condition would be fulfilled in respect of a commodity that was partly desired for the distinction given by being "in the swim" in general (e.g., top hats), or for that given by being out of the swim in general (e.g., diamonds). In fact, however, distinction is usually to be found, not in being in the swim in general, nor yet in being out of the swim in general, but in a combination of resemblance to certain persons and of difference from certain other persons. If the consumption of a commodity increases among those classes with whom I wish to be associated, my demand for it increases, but, if the consumption increases among those from whom I wish to separate myself, it decreases. Suppose, for example, that I am the mayor of a provincial town. In that case, if the Victorian Order becomes a more ordinary decoration for marquises, my desire for the decoration will be enhanced, but, if it becomes a more ordinary decoration for crossing-sweepers, I shall be tempted to regard its presentation to myself as an insult. Furthermore, both among the persons whom a man wishes to resemble, and among those from whom he wishes to separate himself, some are usually much more important to him than others. Thus, a given addition to the aggregate consumption of anything will affect my demand price for a r^{th} unit of it quite differently if the addition is caused by extra purchases distributed over the public generally, or by extra purchases on the part of one of my heroes. Caracalla buys amber in honour of his mistress' hair; amber becomes a craze in Italy. A princess is lamed; court ladies limp. Majesty receives the "General" of a religious body; the inverted commas depreciative of his "generalship" disappear. When a royal personage condemns a barbarous fashion, the osprey yields to artificial flowers; just as, when insiders, or, perhaps, a single celebrated operator, bear or bull a stock, outsiders follow blindly. As Jevons observed long since, people go to places of recreation, music, or art, because other people of a class just superior to themselves are likely to be there: "Under the circumstances," he wrote, "it is, as it seems to me, a positive duty on the part of

the middle and upper classes to frequent the well-conducted places of popular recreation to help to raise their tone. If, to induce them to do so, they must have royal or titled ladies to flock after, then I hope that those who enjoy the wealth and the privileges of this kingdom will bear in mind that they have duties also."¹ The principle involved is of wide application. It indicates the large extent to which leaders of society are able to direct the admiration and emulation of the public, and thus to encourage, as they will, literature, philanthropy, yacht-racing, or contributions to the party funds.

§ 7. To represent the complex conditions described in the preceding paragraph, the formula set out above is wholly inadequate. The demand of any r^{th} source of demand in a market cannot be translated into any expression more simple than this:

$$p = f_1 y_1 + \phi_1 y_1 + \psi_1 y_2 \dots$$

where the signs preceding the various terms may be either positive or negative, and where all that can be said in general is that each term (whether it is positive or negative) is likely to be larger, the larger is the argument contained in it.² In cases where the influence exerted upon the demand schedule of source A by a change in the consumption of source B depends in part on the conditions prevailing in one or more of the other sources, even this formula is too simple, and it is necessary to fall back on the general expression:—

$$p = \phi_1 y_1, y_1, y_2, \dots$$

When the conditions are such that the demand schedule of the separate sources in a market must be represented by formulae of this complex kind, problems, for the investigation of which it is necessary to go behind the demand schedule of the market as a whole, are still, theoretically, soluble; there are a sufficient number of equations to determine the unknowns. The solution, however, must needs be an algebraical solution, and no translation into the language of plane diagrams is possible.³

A. C. PIGOU

¹ *Essays on Social Reform*, p. 24.

² The above formula must also be invoked on the side of supply when the output (at a given price) of a typical firm in one district is dependent in a much greater degree upon the organisation (as represented by output) of other firms in its immediate neighbourhood than upon that of other firms in distant parts of the world (cf. Macgregor, *Industrial Combination*, p. 27).

³ On the general problem discussed in the above paper the reader may be referred to the original article of Sir H. Cunyngaham's on "Some Improvement in Simple Geometrical Methods of Treating Exchange Values, Monopoly and Rent" (*Economic Journal*, Vol. II. pp. 85 *et seq.*), to a review by Professor Edgeworth of the same author's work: "A Geometrical Political Economy" (*ibid.*, Vol. XV. pp. 62 *et seq.*), and to an article by the present writer entitled: "Some Remarks on Utility" (*ibid.*, Vol. XIII. pp. 59 *et seq.*).

THE UTILITY OF INCOME AND PROGRESSIVE TAXATION.

THE purpose of this paper is to bring forward certain considerations bearing upon the relation between Utility¹ and Income and the practical application of the commonly accepted doctrine, which may seem to be of a somewhat heretical bent. Its argument falls naturally into three parts: (1) a constructive treatment of the relation between Utility and Income; (2) an examination of certain fundamental grounds on which the law of diminishing utility, as commonly interpreted, has been supported; and (3) a discussion of the alleged connection between the principle of progressive taxation and the law of diminishing utility.

The best way of making clear the fundamental notion to be expounded is to approach it gradually. First, then, we may notice that, even if income is generally subject to diminishing utility, there are certainly points of discontinuity too important to be overlooked. Thus in Fig. 1, units of income being measured along OX and units of utility along OY , let the successive ordinates of lg represent the increases in the total utility of income to a given person² as income advances up to Ob . When his income is Ob , say, he decides to have a motor car; and, in order to have a very simple case to deal with, let us imagine that the possession of a motor car would not in the least affect the manner in which he would spend income on other things or the utility attributed to them. Suppose the cost of the car, expressed as a continuous annual charge, is ab . Then the annual value of the car to him must be af when bf is such that $cde = efg$. Now, if, after getting the car, his income

¹ Utility is taken merely as a symbol representative of degrees of preference or choice, which are not to be regarded as necessarily measuring impulses or feelings. Through choices or decisions subjective human experiences are transformed into action. By "utilities" I mean the quantitative relations between these decisions or choices, which express, while leaving screened, the internal happenings which the psychologist studies. (See also page 33.)

² Throughout this paper, to avoid circumlocution, individuals will invariably be spoken of, though it would frequently be more appropriate to speak of families.

lengthy periods by habit and social assimilation, though they are never so well-defined that their existence cannot be overlooked. Objectively viewed these types may merge into one another, but subjectively—to the individual—they exist as discontinuous. People usually advance in the social scale by distinct steps.

Let us consider the effects of spending different incomes with reference to some specific standard of living the cost of barely realising which is £300 a year. When the income is just about £300 a year, and the standard is aimed at, the person in question feels pinched—that is to say, the marginal utility of money to him is high. When, on the contrary, the income is well over £300 a year, he feels himself to be in easy circumstances—that is to say, the marginal utility of money is low. The case, up to a point, is analogous to the much-quoted one of the collector who aims at a complete collection.¹ As in that case, so in this, the marginal utility gets greater as the object pursued is approached. Hence it would seem as if incomes devoted to realising a given type or standard of expenditure obeyed some such law as is exhibited by the curve of marginal utilities *gff* in Fig. 2, where the axes stand for the same as in Fig. 1.²

Next let us consider what happens to the adaptable person when his income advances from about £300 a year to a considerably larger one. Let the curve *gff* indicate the successive additions to total utility as his income varies when he spends it according to the £300 standard. Sooner or later, however, he alters his standard of living. Now the law of utility with respect to the new type will be of the same order as that with respect to the old, but the maximum of marginal utility of money will be reached, say, at £600. Let the curve *gh* in Fig. 2 represent the variations of the marginal utility of income with reference to this type. This curve must, for a time at least, rise less steeply than the curve *gf* because increments of income just in excess of *Oa* have relation to a further removed end when expended with reference to the higher type.³ Let us

¹ The reader may be referred to Dr. W. R. Scott's admirable analysis of this case in his paper printed as one of the monographs published by St. Andrews University at the time of its quinqucentenary celebrations.

² The shape of the curve probably resembles that of a lop sided cocked hat. But, despite the more gradual descent on the right, the curve must soon get close to *Ox*, so far as the individual's expenditure on himself is concerned, because many possibilities are excluded by the constraints of the type.

³ For example, money laid out on clothes, when the lowest type was aimed at, would be spent with a view merely to comfort; but, when a higher type was aimed

suppose that the minimum income necessary for subsistence is Oa , and ignore any utility connected with this. Then the higher standard will be adopted when income is Ob , Ob being such that $gfe = cde$. So, as income advanced from a to k (on the assumptions that there is no simpler type of expenditure than the one of which the variations in utility are shown by the curve gj , and that yet a third type of expenditure is not assumed) the marginal utility of income would be traced out by the line $gfcdh$, those parts of the curves which are marked gd and cj remaining hypothetical. In Fig. 2 expenditure according to two standards only

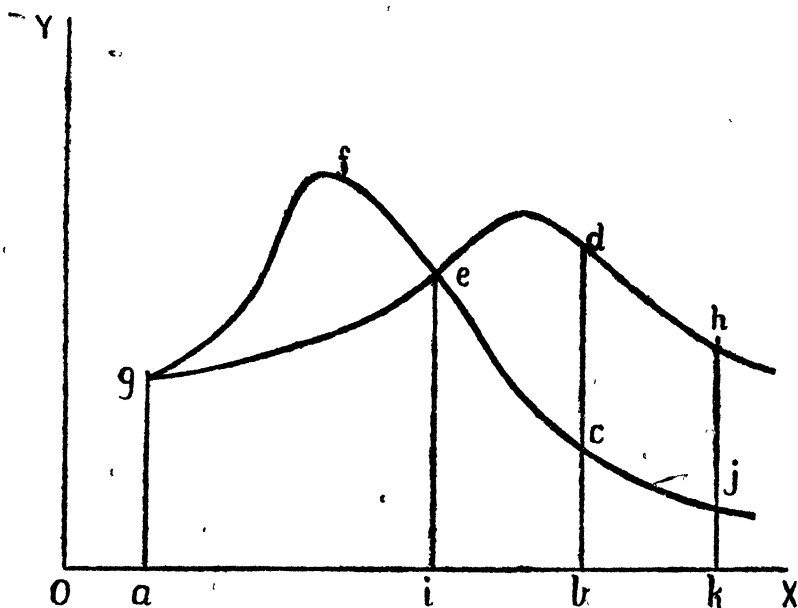


FIG. 2.

is admitted, but, of course, more than two might have to be allowed for.

A few words may be said here to prevent any misunderstanding as to the nature of the curves of marginal utilities of income in Fig. 2.¹ Neither curve must be confounded with a at, some comfort would be sacrificed to appearances, though the sacrifice would yield nothing appreciable in utility till income was large enough for the type to be substantially realised. It may be remarked that there seems to be no unanswerable reason for supposing that the peaks of successive curves like those in Fig. 2 could never, even for the shortest period, range upwards in height from left to right.

¹ The equation to each of them is $y = \frac{dU}{dx}$ when U stands for utility and x for income, and an assumption is made in each case as to the standard of living to which expenditure has reference.

successive utility curve. By the latter is meant a curve whose ordinates stand for the incremental additions made to utility as equal units of an income of a given amount are successively spent, on the assumption that each unit of income in turn is laid out so as to realise the greatest immediate utility, consistently, nevertheless, with the end finally desired; or, to put the same thing in another way, a curve whose ordinates mark from right to left the sacrifices of utility that would be entailed were the things purchased with the income instantly removed in the order in which the consumer would elect to relinquish them, all things being taken in units of equal cost. For every size of income a curve of successive utilities can be drawn theoretically. Now for an income of any given size, say Oi , the sum of the successive utilities (apart from the utility of the minimum income Oa) would, of course, equal $aiefg$ if gfe is the curve of the marginal utility of income as previously explained. But, for such an income, the final one of the successive utilities would be greater than ei , and the initial one would be less than ag ; and similarly for all other sizes of income. The larger the income the lower is the initial one of the successive utilities (beyond the necessity minimum), because it is spent in some degree with reference to a more distant end. The extra height of the final successive utility over the marginal utility of income is caused by the fact that *ex hypothesi* the former, regarded as a sacrifice, cannot be reduced by modifying the expenditure of the rest of the income when the sacrifice is made. Further, it may be observed that, when the curve of marginal utility of income begins by ascending, the curve of successive utilities must ascend at first. It might be thought that the latter could not because it expresses, when read from right to left, the effects of losing successively what can be dispensed with at least cost of utility. But this reasoning is unsound, as can be demonstrated formally as follows. If x and y are two things, or two groups of things, consumed, and U_{x+y} stands for the utility of x and y when taken together, U_x for the utility of x in the absence of y , and U_y similarly for the utility of y in the absence of x ; then the reasoning implies that :

$$(i) U_{x+y} - U_x < U_x$$

can be directly deduced from :

$$(ii) U_{x+y} > U_x > U_y$$

and obviously it cannot (see also page 32). When this false

inference is drawn, the erroneous assumption (implying an atomistic view of experience) is made that :

$$U_{x+y} = U_x + \dot{U}_y.$$

However, it ordinarily happens that, when (ii) holds, (i) holds also.

* It seems likely that the curves of Fig. 2 and the relations between them are such that the individual who is not very poor is generally, if not always, on an eastern slope, so to speak. When he steps to the higher type, he comes, as a rule, to such a position that money in his new circumstances is still subject to diminishing utility. So there are jumps; but there is seldom, if ever, any continuous increasing utility of income when people are not passing out of a state of extreme poverty. Nevertheless—and this is the important point—the view here expounded does involve the hard saying that the marginal utility of money may be greater to a man after his circumstances have improved.¹ I am sure that this is so in an appreciable number of cases: I think it is not infrequently the case; and it may be the ruling case when certain income limits (which vary with the individual) are passed by inconsiderable amounts. It is a common experience to meet with people who have obtained a slight accession of income, and whose enjoyment of life has obviously been increased quite out of proportion to the accession of income. This cannot be explained satisfactorily if additions to income can only bring diminishing additions to utility. Such people (after taking a larger house, say) are quite likely to be more careful about casual expenditure (though possibly careless with pence for reasons to be expounded), and people do not get more careful with things as the things fall in value to them. Again, the wastefulness, or open-handedness, of many unusually well-paid working men long after their old habits, formed when they were much poorer, have had time to crumble away, as contrasted with the penuriousness of many men in a somewhat better-paid economic class, at least suggests that the marginal utility of money is less for the former than the latter, if the two marginal utilities may be compared (see, below, page 33). Illustrations might be indefinitely multiplied. Of course, the ultimate test is furnished by the judgment of people who have had, in a reason-

¹ It should be pointed out that the doctrine is involved also in such a case as is dealt with in Fig. 1, which does not incorporate the fundamental notion here advanced. Such a case might be waived aside as an exception, but I should doubt whether, in view of the many very expensive items in the budgets of the rich, the number of such exceptions is so few that they may be lightly dismissed.

ably short period, wide experiences of different incomes and who realise the points at issue; but, unfortunately, most people are not good at introspection.*

II.

It behoves us now to consider the chief reasons for which the view opposed to that advanced in this paper is held. Three main reasons are ordinarily given for the view that the utility of money invariably becomes less to a man when he becomes rich. Two are empirical, and the other is *a priori*.

Empirically, it is pointed out that, when well-to-do, a man is apt to be more careless about pence than when he is not so well off; which must mean, it is said, that the penny has a lower marginal utility to him in the former case. But must it? The following explanation is equally plausible for many instances, namely, that the penny ceases to figure as the unit of account in deliberations about expenditure when a man achieves wealth. The penny might have risen in utility, but, nevertheless, be neglected because of the greater aggregate utility of income. Time is too limited, in relation to the income to be spent, for the rich man to think of a penny—or, so to speak, his wealth makes his leisure too valuable for it to be worth his while to throw it away in devising plans for the saving of pennies.¹ The poor man saves pounds by looking after the pence; but the rich man, by looking after the pence, would lose pounds in value. Moreover, there is this further consideration, that the rich man is encouraged to think in large units by the high average price of the things bought by him. So, despite the rich man's carelessness about pence, his money might have been endowed with an access of utility on his becoming rich. In instituting a comparison, obviously we must not take as the standard unit a sum which is disregarded in one of the cases compared.

Again, still empirically, it is maintained that the richer a man is the higher is the pay needed to induce him to do more than a given amount of work; and that this must be because money has less utility to him when he is rich. But, assuming for the sake of argument that the first statement holds universally, the con-

¹ The explanation may be put crudely in this way. A man with, say, £200 a year, has 48,000 penny units of expenditure per year to think about, and he has just time for the task. But a man with £500 a year would have 120,000 units of expenditure to think about if he made the unit of account the penny, and for so extensive a task he might not have time. He, therefore, makes his income manageable by falling back on a higher unit of account and thinking of the problem as made up of 60,000 twopenny units or 40,000 threepenny units.

clusion drawn does not necessarily follow. Greater wealth generally means that leisure has a higher value, so that a larger absolute sacrifice is made in undertaking extra work when a man has become wealthier. Moreover, in the case in which the greater wealth results from greater earnings, the person in question will obviously be unwilling to under-cut himself, so to speak, by accepting work at a low rate of remuneration; and, apart from this, he will naturally take into account that the time given to the low-paid work might reduce his capacity to earn at the highly-paid work. These considerations make it evident that any abbreviating effect which rising incomes may have on the time given to earning can be explained without reference to the marginal utility of income.

* The *a priori* argument puts it that the most pressing wants are satisfied first, and that as we get wealthier less pressing wants are left to be satisfied, so that in satisfying them we get less utility. This argument seems so convincing because it is self-evident in one sense, which, however, does not happen to be the sense that must be read into it when a contrast is drawn between incomes of different sizes. The mere fact that, when I have £200 a year, I buy six imitation Chippendale chairs, rather than a single genuine one which costs as much as the other six put together, proves that I prefer the six imitations to the one original chair when I have an income of £200 a year. But it does not prove that, when I have the larger income and have bought the costly chair, and compare my enjoyment of it under the new income conditions with my enjoyment of the six cheap chairs under the old income conditions—that then I must judge the former enjoyment to have been greater than the latter.¹

Some of the defences of the doctrine that the marginal utility of money must always be less for the larger than for the smaller income are, it would seem, less impregnable than they appear at first sight.

III.

Another important line of defence remains. Some of my readers may be prevented from according full assent to the notions brought forward in this article by their acceptance of a principle of taxation that is steadily winning the confidence of the public, namely, the progressive principle, which recommends taxing the higher incomes at a higher rate. This principle is

¹ See also pp. 29, 30.

not uncommonly deduced from two propositions: (1) that equal proportional sacrifice should be entailed by taxation, and (2) that the marginal utility of income falls continuously in such a way, as income increases, that taxation of all incomes at the same rate would cause proportional sacrifice of utility to vary inversely as income, other things being equal.¹

It is first necessary to bridge the gulf which has been left yawning between the experiences of different individuals (see note on page 25), since the kind of taxation referred to above aims, as it is put, at making the sacrifice in utility or satisfaction of different people equal in relation to their incomes or utility or satisfaction. There is no gulf to bridge it we can think of satisfaction as homogeneous and measurable (at least theoretically) as between different people.² But I am unable to think of it in this way; and, to be on the safe side, and avoid dogmatising about a psychological question, I never mean by utilities or satisfactions more than conventional symbols representative of the relations between an individual's preferences.³ Consequently, the satisfaction of one person cannot be contrasted with that of another person, according to this view, for obviously no preferential relation can link the two experiences together. However, there is no real difficulty when we come to a political question like taxation, since the gulf is at once bridged by the doctrine, which is essential to much political doctrine, that people who in all external relations seem to be the same must be treated as if they were the same, or, in other words, that the State must not be a respecter of persons. In short, the fiction on which we proceed in taxation (which need not be defended here) is to regard different people in the same or different circumstances as the same people in the same or different circumstances.

Now, given the correctness of the theory in this paper, the second proposition referred to above does not hold with any overwhelming degree of universality at least. On the contrary, it would seem likely that, in many cases, a man's proportional sacrifice of utility would be increased when his income became greater, were his income still taxed at the same rate. Does acceptance of the ideas here expounded, then, involve discarding belief in the progressive principle, and even maintaining, for not

¹ Every conceivable kind of diminishing utility of income does not, of course, necessitate progressive taxation if equal proportional sacrifice is to be secured.

² I am taking "satisfaction" to refer to a purely subjective state, and "utility" to refer to what is predicated of the thing producing it.

³ See note on p. 25.

a few circumstances, that the rate of taxation of the higher income ought to be less than that of the smaller one? If it does, we are certainly in a predicament, for most political philosophers, I imagine, have a sort of instinctive belief that the progressive principle is somehow right. But happily it does not, as I shall hope to show. With an easy mind we may depy the truth of the second premiss given above to justify progressive taxation (namely, that income must be subject to diminishing utility), because there are grounds for holding that the first premiss (that equal proportional sacrifices of utility should be aimed at) is untrue, also. Indeed, the real basis of taxation may be quite other than a principle of distribution of utility-sacrifice.

Let us put the crucial question to ourselves in this way. Should we think it fair to reduce the rate of taxation of large incomes if, by a miracle, income above a certain amount became subject to immensely increasing utility? An answer in the affirmative is entailed if we believe that taxation should aim at equal proportional sacrifices of utility; but it seems absurd to suggest collecting less money for the State from the rich and more from the poor on the ground that the rich have become really richer. This crude *reductio ad absurdum* may serve to make the reader doubt whether the principle of equal proportional sacrifice of utility can be sound.

But, if this principle is not sound, what is the basis of progressive taxation? It is, in part at any rate, somewhat as follows, I should suggest: that the wants satisfied by the earlier increments to income are usually of more importance socially than the wants satisfied by later increments to income, whether the satisfaction of the former causes more utility or not. In speaking of the equity of taxation, we are obviously talking ethics, and therefore the wants primarily dealt with must be adjudged not according to the value of their satisfaction in fact (positive value), but according to the value of their satisfaction in a moral scheme of consumption (normative value). The poorer a man is, the more likely is some confiscation of income to cause him deprivation of comforts which add to efficiency (meaning the social value of his life) or even of necessities of efficiency; the richer he is, the more likely is the curtailment of his consumption to be effected at the expense of luxuries which add little or nothing to efficiency, or may even diminish it. So the right basis has a certain reference to faculty. If it is put in terms of sacrifice, it may be said that equal proportional sacrifice is the right thing to aim at, only the sacrifice meant must not be one of utility (positive

value) as commonly understood. If this kind of utility comes into the reason for progressive taxation at all, it can only do so, according to the opinions expressed here, in the event of its being arguable that the man who enjoys more utility than his fellows has social obligations much greater than theirs; and, if it figures in this way, the case for progressive taxation, so far as it depends upon utility, would be strengthened rather than weakened by the contentions in this paper as regards the connection between utility and the magnitude of income. What seems to me false doctrine, as regards the basis of progressive taxation, has no doubt been occasioned, in some degree, by a confusion between the ~~agency~~ ^{agency} and the importance of wants, and by the assumption that, when wants are satisfied according to degrees of urgency, their progressive satisfaction must result in continuously decreasing accessions of utility.¹

S. J. CHAPMAN

•To make the argument definite, I have selected for examination the utility-sacrifice theory which seems to me most plausible. But the argument in general holds when any other utility-sacrifice theory is held, since, to deduce the necessity of progressive taxation from any of them, diminishing utility of income must be assumed. (See Edgeworth, *ECONOMIC JOURNAL*, vol. VII, p. 550 *et seq.*)

THE SOCIAL INTEREST IN SPECULATION ON THE STOCK EXCHANGE.

AN ~~an~~ organised market consists essentially of specialised machinery by which goods are conveyed from one group of persons to another; properly speaking we should perhaps regard it as constituted by the whole of the organisation by which the goods are moved in their passage from one to the other group. Railway companies, merchants, shopkeepers reduce the cost of conveyance of material goods; banks, issue houses, brokers reduce the cost of conveyance of capital; in each case the market is essentially an organisation for the transport of goods between persons and its social contribution is to be measured by the economies of transport introduced by the agency of its specialised skill and machinery.

The market for capital consists then of all the machinery lying between those who save capital and those who use it. But the sense in which the term "capital" is used needs some elucidation, for evidently the money market does not deal in durable goods, like houses and machines, to which the term is usually and properly applied.

The act of saving is one of forgoing the enjoyment of goods which may be commanded from society's workshops; it is therefore an act which liberates social resources from the production of these immediately consumable goods, and frees them for other purposes. The product of the act of saving, the commodity of the money market, is therefore a control over that part of social resources which are thus freed, and it is this control over free resources, this "command over capital" (in Dr. Marshall's terms) which is conveyed from one group to another, and which enables the business man into whose hands it passes to adopt roundabout processes, and set up the factories and machines which constitute capital proper.

The machinery constituting the market for capital, in this sense of free capital, consists of the organisation of the banks, the Stock Exchange, trade credit, the brokers, solicitors, trust companies, and a great variety of financial institutions adapted to

special needs.³ The essential function of each part is the conveyance of capital between persons, but the characteristics of the one shade imperceptibly into those of the other in adaptation to the varying characters of the groups they serve to connect, and separation must be made on the ground of somewhat fortuitous characteristics rather than by any true "carving at the joints."

If we separate these parts of the market by reference to the nature of the security in which they deal, we may mark off fairly clearly the organisation of issue houses, brokers, jobbers, &c., dealing in the homogeneous groups of negotiable securities—stocks and shares; but this organisation is composed of two parts, analytically distinct, which must be separated in order to isolate the market with which this paper is concerned.

The first part consists of issue houses, brokers, underwriters, &c., who are concerned with new issues, and whose function, quite clearly, is to convey free capital from the group who save and own it, the pure capitalist class, to the group who use it, the pure entrepreneur class. By its agency an enormous amount of capital has been carried from one group to the other.

But the presence of this quantity of capital in the hands of entrepreneurs implies the supply of certain services, such as waiting and uncertainty-bearing; that is to say, it implies a burden of disabilities falling upon the capitalist class who have forgone the use of their resources; and the second part of the market, the Stock Exchange, consists of an organisation lying wholly within this group of capitalists, the function of which is to distribute this burden among those who are willing to bear it at the lowest price. Thus the device of splitting up securities into ordinary, preference, and deferred shares, &c., concentrates Uncertainty (*i.e.*, "Risk") on certain classes of securities, and allows uncertainty to be borne by those who, at any moment, are willing to do so most cheaply; while as the circumstances or tastes of the capitalist change from time to time, the organisation enables him to transfer his burden to others who are then more willing to undertake it.

There is thus a continuous process of shifting in accordance with changes in the particular circumstances or outlook of the individual capitalist, and the social service of the organisation by which this distribution is effected between different persons and different times is measured by the reduction in the real costs of supplying the quantity of capital which has been transferred into the hands of the entrepreneur class.

Bringing together these two parts of the market, we see that they are interdependent parts of an organisation whose social

function is that of conveying capital into the hands of those best fitted to use it; of bringing together capital and business power, thereby lowering the cost of production of business undertakings and increasing the national dividend.

The speculator performs important services in both these markets; in the former, for example, he acts in effect as an unpaid underwriter, and may exercise an important influence, sometimes for good, sometimes for evil, upon the direction in which capital is supplied. We are concerned here, however, only with his services in the latter market, the Stock Exchange, considered as ~~an~~ an organisation for the continuous redistribution among capitalists of the disutilities involved in the supply of capital outstanding in the hands of entrepreneurs. We need to know, therefore, what is the nature of those disutilities, what is the economy which he effects, and finally whether the payment which he receives for his services is governed by the normal laws which confine the reward of the producer within the value of his contribution to society. The result should indicate the social contribution of the speculator.

The supply price of capital is composite, and consists of three payments corresponding to the three costs or disutilities involved in its supply.

Pure waiting is taken to mean the service of supplying capital for periods terminable at will; its price is the net rate of interest.

The bearing of Risk, or more properly, Uncertainty, needs no description; it is a service which is generally disagreeable, and therefore commands a payment. The third element, the bearing of Financial Insecurity, was discussed by the present writer in an article in THE ECONOMIC JOURNAL in September last: it ~~needs~~ only a brief description here. One of the important circumstances of business is the condition that, owing to uncertainty as to the future, a business man is constantly exposed to the chance of sudden demands being made upon him, and consequently of sudden contractions in the available resources at his disposal which may seriously hamper his operations, and may even result in a bankruptcy, although his assets largely exceed his liabilities. If a business man lends a temporary superfluity of capital on the condition that it is repayable on demand, his position is much the same as though he retained it in gold in his safe. If, however, he supplies capital for longer periods, as on debentures or against a mortgage, his power to meet emergencies is thereby weakened, and there is an increase in his Financial Insecurity, for bearing which he naturally requires to be paid. The bearing of Insecurity

is therefore a real cost in the supply of capital, and the practice of the market shows it to be a service which commands a definite price. Thus "overnight" money is cheaper on the average than the rate on three months bills, and the rate on three months bills which are marketable is lower than the rate on equally secure three month loans, which are not. Every increase in the marketability of a security diminishes the Insecurity borne by the capitalist, for it makes his invested resources more available in the case of emergency. The work of the Stock Exchange in increasing the marketability of securities is therefore, in effect, the service of reducing this element of cost in the supply of capital; its very great importance is immediately seen when it is realised that, in the absence of this organisation probably only a small fraction of the present supply of capital would be forthcoming for railways and similar undertakings which require the use of capital for long periods of time.

It is usual to include among the costs of production of capital the trouble involved in its administration; but the economies which the market effects in the trouble of dealing in stocks and shares is already estimated in terms of a reduction of financial insecurity, and the other more important part of trouble involved in watching investments is more properly considered as a part of the cost of bearing uncertainty. In considering the social service performed by the market we may avoid separate consideration of its work in reducing trouble, just as, for other reasons, we may neglect the consideration of any effects it may have in reducing the cost of pure waiting. We are therefore left to deal with the costs of the two remaining elements, the bearing of Uncertainty and Insecurity; and we may pass directly to the more limited problem of measuring the contribution of the speculator to the organisation which reduces the amount of these two disutilities by facilitating their rapid redistribution among the group of capitalists in accordance with the changing circumstances of its members; thereby reducing the burden cast upon the capitalist group by the transference of the quantity of capital lodged in the hands of entrepreneurs, or in other words, lowering the cost of production of capital.

The Service of the Speculator.—Commercial operations arise from the profit to be drawn from price differences of two kinds. Differences of price between two points of space call into being organisations for obtaining knowledge of them, and for the transport of goods between the two places. Differences of price between two points of time result in an organisation for forecast-

ing them, and for "carrying" goods between the present and the future. The two kinds of operation, the trading and the speculative, are essentially similar; they are acts of transport effecting a redistribution of goods, which tends to continue until the interval between prices declines to an amount which just covers the cost of the marginal transaction.

"It is therefore quite clear that the direct net social contribution of the railway company and the speculator must be measured by the reduction effected in the cost of carrying goods between persons separated in the one case by space and in the other by time; and that the product arising from this service of transport ~~consists~~ like that of any other producer, in a utility added to the commodity dealt in; in this case it is a utility of position which is apparent in the form of an increased exchangeability of goods.

The costs of production of this utility, in the case of the speculator, arise, first, from the condition that the carriage of goods through time requires the use of capital, and therefore a charge for interest; and, secondly, from the condition that the essential variability in value of these goods involves a charge for the bearing of Uncertainty. The former element of cost may be taken for granted; the latter indicates the essential service, and leads directly to a consideration of the efficiency of the speculator first in reducing Uncertainty by forecasting changes in value, and secondly in bearing that residue which he is not able to eliminate. It needs to be shown that this service is performed more cheaply by the speculator than by the public.

In order to bring this reasoning nearer to actual business conditions it is convenient to break off the argument at this point, and to trace the effect of the speculator's work in the Stock and Produce Exchanges.

The distinction between the speculative and the non-speculative must be made rather between transactions than between persons; by a speculative transaction is meant one which is conducted by a person whose operation is influenced mainly by consideration of the future capital value of the security (or other goods) in which he is dealing.

In a produce exchange for, say, cotton, fluctuations in the value of the commodity when regarded over long periods of time, tend to cancel one another. But, although in the long run they may inflict no direct money loss upon the market, the possibility of their occurrence is always an uncertainty to each holder of cotton. The manufacturer who carries his own cotton may in the long run have suffered no direct money loss, but he will have

been continuously subject to imperfectly foreseen changes in his business situation; and he will usually be willing to pay a price for the removal of this evil by buying or selling a future, the price of which will (normally) contain a payment to the speculator for his service in carrying cotton through time. He desires protection against such of these unforeseen changes as arise from fluctuations in the value of cotton, and obtains it by shifting the burden of Uncertainty to the speculative market. Were he not to do so, the Uncertainty to which he would be exposed would require him to maintain a reserve of resources, the loss of interest on which would be a measure of the injury which Uncertainty inflicted upon him.

The holder of a security, on the other hand, is necessarily a bearer of Uncertainty. He cannot separate the Uncertainty from his security and effect a simple transfer to the speculator, though this result may be attained in part by other methods. The security holder desires protection from imperfectly foreseen events which arise from causes external to the market—from those circumstances of his business situation which may cause financial emergency. The imperfect availability of his invested resources limits his power to meet emergencies, and therefore carries with it Financial Insecurity. He will therefore be willing to pay a jobber for its removal, and the amount of the jobber's "turn" will depend upon the cost of his speculative service, that is, mainly upon the Uncertainty which he bears during the interval which elapses before he can undo his transaction. It is not, of course, intended to imply that the amount of the jobber's turn (plus the broker's fee) measures the social cost of transferring a security from one investor to another; this amount will generally be a payment for only a part of the process, the remainder being effected by the other speculators in the market.

The work of the jobber appears in the Stock Exchange as an increased facility for marketing; that of the dealer in the produce market as a bearing of Uncertainty, but although its aspect varies, the same speculative operation underlies both, and its effects are quite symmetrical. The produce broker, by taking over from the manufacturer a burden of Uncertainty, enables him to invest his resources more closely; his costs of production fall, and the gain is shifted to the consumer in a lower price of his product. The jobber in the same way removes Insecurity from the owner of securities; the supply price of capital is lowered, and the cost of production of business undertakings is reduced. The speculative service, fundamentally similar in the two cases, both in its nature

and in its cost of production, effects a cheapening in the process of transport. The saving is shifted to the cotton manufacturer in the form of a reduction in the costs at which he can meet the Uncertainty falling upon him; it is shifted to the security holder in the form of a lower cost of marketing, that is, in the reduction of the burden of the Financial Insecurity to which he is exposed. The economy which the speculator can effect in the costs of transport through time depends, first, upon his ability to bear the Uncertainty of which he relieves others; secondly, upon the extent to which he can reduce its amount by his skill in forecasting the future.

From the conditions obtaining in these highly developed markets, where the speculator's direct service is a competitively produced utility, in effect sold on the market to competent buyers, it is a necessary inference that the gain to the purchaser exceeds the cost to the producer, and accordingly that the supply of the service results in a net social advantage. This conclusion is reinforced by considerations derived from an analysis of the speculator's payment in such conditions.

The Payment of the Speculator.—It is said that a Rothschild laid the foundation of his fortune by a successful speculative transaction; he obtained the earliest news of the victory of Waterloo and reaped an enormous profit by a skilful operation in Consols. His gain may have been a million pounds and his costs £10,000; his service to society consisted in temporarily making Consols rather more marketable, and in raising their price a day or perhaps a few hours earlier than would otherwise have been the case. It would have been to his advantage to have invested, if necessary, perhaps £800,000 in the organisation of intelligence, yet the advantage to the community would certainly have been no greater; £1,000,000 would have been paid to obtain a trifling improvement in the market. It is evident that the principle of payment here is quite different from that which normally obtains. The speculator's profit is not drawn from the value he contributes to society; it is limited only by a difference of price multiplied by the volume of his transactions. The social advantage of his operation is not measured by this difference; it consists of the additional utility added to the product by the speculative transaction, an amount unrelated to the source of individual gain.

The condition that the gain arises from a difference between two prices does not, however, in itself offer any explanation of the peculiarity, for the profit of a manufacturer or retailer is derived from a similar source; some further inquiry is necessary.

When the manufacturer of a freely produced commodity employs skilled chemists in research, the salaries he pays are similar to the expenditure of the speculator in perfecting his judgment; each will press his investment in this direction up to that point beyond which he would expect no further gain. From his chemists the manufacturer will get an output of ideas which increase his productive efficiency; they swell his profits, but they cannot, even when monopolised, add to his gains an amount greater than the benefit they confer upon society. Indeed, it will generally happen that the individual (marginal) gain will be less than that of the community: in so far as this is so, investments in knowledge tend to be carried less far than is desirable. The extent to which the producer of new ideas should share in the social advantage of his improvement cannot be precisely stated in general terms, but the existence of the Patent Acts is good evidence that the individual profit tends in these cases to be too small rather than too great.

Similarly with the speculator; his agency will supply him with knowledge, the possession of which reduces his costs of production by lessening the Uncertainty which he takes over. So far the two cases are precisely similar; the investment of resources in intelligence yields differential advantages of production; if the knowledge is monopolised the individual profit is still confined within the value of the net gain in social efficiency; and if conditions of true competition obtain, the advantage is rapidly shifted to the public in a lower (or more favourable) price of the product.

But there is this difference. The intelligence acquired by the speculator has the effect not only of reducing his costs, but of injuring the machinery which regulates the reward of the factors of production. Society protects itself against exploitation, not by directly allotting similar payments to similar costs, but by providing for the free exchange of the products of those costs. In order that the community shall give no more than it receives it is essential that buyer and seller should have equal knowledge of the commodity in which they deal; any variation from this condition destroys the efficiency of the method by which reward is regulated. For this reason, therefore, the superior knowledge of the speculator enables him to transfer wealth from others to himself; and this advantage can be destroyed only by the most complete competition which will reduce the price of his services to their costs of production. The same condition is essential in a trading operation; a single arbitrageur operating between two markets, although dealing with willing buyers and sellers, may

draw enormous gains from his greater knowledge of prices; but a single competitor can put buyers and sellers on an equality in knowledge with the arbitrageur, and reduce the profits of both to a normal payment for the convenience which they afford to the public.

In the absence of such competition the private gain of the speculator exceeds his social contribution, and he tends to press the production of intelligence beyond that margin at which its social value is equal to its cost, up to that point, at which his individual profit is maximised.

The point of view may be slightly shifted and the speculative operation regarded as a whole. It consists essentially of a purchase at one point of time and a sale at another; the redistribution of commodity effecting a net gain of utility. Any cheapening of the process which produces this utility is a gain of social efficiency, and enriches society (regarded as a group containing the speculator) by the excess of this utility over its cost. But the circumstance that this reduction of cost is accompanied by an unduly large transfer of wealth to the speculator tends to make him press the application of resources in this direction beyond the point socially desirable, and so to bring about a net social waste.

The provisional results may now be summarised. The direct service of the speculator lies in reducing the cost at which goods are conveyed between persons separated by time. This operation is a process of production which, like any other, adds utility to a saleable product; a utility of position which facilitates exchange, and in the case of stocks and shares reduces Financial Insecurity, thereby lowering the cost of production of capital. The expenses of this process arise from the costs of supplying skilled judgment of the future, and the service of bearing Uncertainty. The investment of resources in the production of intelligence tends to be pushed too far, for the reason that the possession of superior knowledge allows the speculator to transfer wealth from others to himself to an extent which has no relation to the value of his service. Hence arises a divergence between social and individual interest which can be removed only by the presence of competition sufficiently free to eliminate the ignorance of those with whom the speculator deals, and to reduce his profit to the cost of production of his services. In speculative operations it is therefore only the force of free competition which gives society that natural protection which, in other cases, *whether under monopoly or free competition*, confines the profit of the individual within the value of his contribution to the community.

The limited nature of this provisional conclusion soon becomes apparent, however, when we turn to the actual work of the speculator on the Stock Exchange, which may conveniently be considered by looking at the general conditions governing his costs of production. The first element is the *bearing* of Uncertainty. The real cost of supplying this service is probably lessened by the speculator's temperament, his power of doing so must certainly depend very closely upon his facilities for obtaining control over capital; for the exposure of £1 to a given risk of loss is an evil which obviously diminishes with every increase in the quantity of resources disposable, and in the variety of their distribution. Both the wealth of the jobber and other speculators, and the service of the banks in extending their control over resources, are therefore of the first importance in reducing the costs of the market.

The second element consists of the *reduction* of Uncertainty. As knowledge of the future extends, Uncertainty declines indefinitely; at its vanishing point the speculator's service lies entirely in the production of intelligence. Probably the skill and experience of the jobber enable him to effect a considerable economy in this way, but, passing outwards to the public, knowledge and judgment, though corrected to some extent by the broker's advice, decline in value and rapidly reach a point where they are negligible relative to ignorance. In these outlying regions the social value of the speculator becomes indeterminate. He increases the marketability of securities, and therefore reduces Insecurity, but while he bears Uncertainty for a payment which is likely in general to be negative, he increases the amount to be borne by the market by the incalculable fluctuations of price which result from his fitful operations. This ambiguity in the social effects of the unskilled speculator shows immediately that the simple statement of his direct product does not exhaust the account of his influence upon the market. His primary service consists of a commercial operation between two prices separated by time and results directly and necessarily in a diminution of Financial Insecurity. The efficient performance of this act requires him to reduce the Uncertainty falling upon himself, and this he does merely by obtaining a superior knowledge of the future course of prices. But while his operations will result in prices tending to move towards those which he anticipates, it is by no means necessary either that they should be steadier or that they should move towards prices more nearly approximating to investment values. The gathering of his profits is independent of his influence, both upon the variability and the accuracy of price,

Every speculative act influences price, but the speculative gain may be independent of the social results of that price movement; the control of price in the interests of the community is not a service deposited with the speculator by economic circumstances which make his profits dependent upon its performance. The social value of his influence on prices may be positive or negative; it is purely fortuitous, and depends, not upon the self-interest of any business group, but upon the particular environment in which the speculator operates.

This circumstance suggests at once that in attempting to estimate the social importance of a process of production it is insufficient to consider only its direct product; account must be taken also of any other social results involved in its operation.

The profit of producers in general is limited by the value of the direct exchangeable product which alone forms the incentive to their operations; the social gain is given by the algebraic sum of the value of both direct and indirect results. The services of a railway involve an indirect effect, a surreptitious educative influence upon the community which, using Professor Pigou's terms, make the social, greater than the individual, net product; in such a process as banking these indirect results are perhaps negligible; in the building trade the social gain is less than that of the producers by the evil effects upon labour of its, discontinuous employment, evils which do not fall wholly upon builders, but are distributed over society in general. It is evident, therefore, that the indirect effects of various branches of production pass from a maximum positive value through zero, where individual and social net product are equal, to a large negative quantity; the series is distributed between two such extremes as the output of new ideas and the process of production of a pick-pocket.

The provisional conclusion that in the presence of free competition the direct service of the speculator *must* be advantageous to society, needs therefore to be supplemented by a consideration, first, as to the extent to which free competition does, in fact, obtain; and, secondly, by an estimate of the importance of the indirect effects of speculator's operations; and these latter effects are the more difficult to estimate for the reason that their importance cannot be examined theoretically by any consideration of the marginal equilibrium of cost and utility in conditions of free exchange, but are questions of fact which can be answered only from direct observation.

One of the most prominent indirect effects of speculation is

the instability which its practice introduces into living; it destroys that relation between "conduct and consequence" which is the basis of rational action. No attempt can be made to measure these effects; even if it were possible, the moral evil which they involve would remain largely a matter of opinion. It is perhaps reasonable to consider them set off by the pleasures of speculation, an influence scarcely less measurable, but evidently of great importance in lowering the costs of the market.

We may therefore neglect these indefinite effects and pass to consider the nature and importance of the speculator's influence upon the price of securities.

It happens that the conditions in many markets—in particular where, as in the market for wheat, the volume of commodity is very great—prevent the speculator from profiting by any attempt to control future prices, and limit his gains to those obtained upon operations which, if intelligently directed, have the effect of smoothing price changes due to the natural course of events. But the opinion that the total effects of the speculator's operations in such conditions show a balance of advantage to society cannot be extended to the Stock Exchange without taking account of the very considerable differences between the two markets.

Securities differ from produce in several important respects. First, a group of stocks and shares is not homogeneous, like interchangeable grades of wheat; the quantity of any issue is often comparatively small, a condition which gives greater scope for manipulation, and, by increasing the risks of short selling, diminishes its corrective influence. Secondly, while the value of each is subject to variations arising from both general and particular causes, in the case of the latter not only intelligence, but also control, is in a great measure lodged with interested parties. Finally, the income from securities is often far less definite and certain than that from produce; they are held in vast quantities by a public very imperfectly informed, and therefore highly susceptible to suggestion; that is to say, the public demand curve for securities is not independent of price, but may be influenced by its fluctuations.

The high importance of establishing prices conforming to a normal level is derived from the function of price in regulating production and consumption; that is, in effecting a more perfect adaptation of supply and in facilitating that distribution of the output which maximises its utility. The adjustment of resources in production is governed not by momentary prices but rather by an average price over a period which varies with the conditions

of production of each commodity, and this effective period is likely to be much shorter in the case of securities than in produce. Mr. Emery maintains that in the wheat market improved prices may have some good influence on the regulation of supply; but if we compare the effect on the output of wheat of a few months of high wheat prices with the influence of a corresponding period of inflated prices upon the production of oil shares, it becomes evident that the influence of speculation is likely to be far greater in the latter than in the former case. Moreover, not only is the magnitude of the speculative effect likely to be greater in securities than produce, but its importance will also be greater. Company directors place a high value upon their "credit," that is, upon their power to increase their issues in cases of great opportunity or emergency, and this power being bound up with the relative stability of the market quotation for its shares, the demand for stability is an urgent one.

Corresponding to the effect of improved prices in controlling the consumption of wheat and increasing its utility to the consumer is the effect of a closer approximation to investment values in increasing the value of securities. This closer approximation cannot, of course, increase the money yield of stocks and shares, but by narrowing the limits within which capital values fluctuate, and by giving greater knowledge of their future yield, it increases their utility by reducing the Uncertainty of the investor.

It is not, of course, possible to arrive at any very definite opinion from general reasoning of this kind, but it appears fairly clear that on the Stock Exchange, as contrasted with the produce market, accurate prices are far more important in regulating production, and not less important in the distribution of supply.

In passing to consider the general conditions which determine the actual influence exercised by the speculator on market values, the differences between the two markets are seen to become more prominent.

It has already been stated that the public interest in speculative transactions requires that they should be based on a knowledge of what future prices *should* be, while the speculator is concerned only that they should be based on a knowledge of what future prices actually *will* obtain. The degree of coincidence between these two interests depend mainly upon the volume of commodity present in the speculative market and susceptibility of the public to the suggestion of changing prices.

When the volume of commodity is as vast as that in the wheat market, the possibility of manipulation is reduced to a minimum;

a corner in wheat is, according to Mr. Emery, a thing of the past. But there is a further advantage in mere quantity; it enables the bears to reduce the balance of optimism in the market, thereby tempering the rapidity of a decline in values much as the action of bulls anticipates a rise.

It is evident that in this respect the conditions on the Stock Exchange are in general far less favourable to the establishment of improved prices. Sir Robert Giffen draws attention to the very great importance of the presence of a large volume of capital speculatively directed, which moves readily from one sound security to another, maintaining their values against fluctuations in opinion unjustified by actual conditions. No doubt this service is of very great value, but it needs to be balanced against the speculative influence on the less reputable securities. Looking at the recent oil and rubber booms, typical of many others, it seems doubtful whether the speculative price has on the balance any positive value in regulating the price of such securities. The speculator's influence in distorting price need not be due to unaided manipulation; indeed, it is said by Mr. Hartley Withers that deliberate manipulation by powerful interests is of little importance in the London market, and this opinion is confirmed by that of business men. The evil appears to arise to a far more important extent from the continuous qualitative changes in many securities, and the consequent extreme difficulty in estimating their value. As a result of this any change of price originated perhaps by professional speculators, re-acts upon public opinion and produces an unreasoning speculative activity which results not in correcting, but actually in reinforcing, that change.

While general reasoning goes to show that speculative operations are far less likely to result in improved prices on the Stock Exchange than in the great produce markets, it cannot yield any very definite results. If, however, one contrasts the hypothetical market formed by investors only with the actual Stock Exchange containing speculators of every shade of skill and experience, and if he reflects further that the trust companies alone direct the speculative investment of some seventy millions of pounds with a judgment far superior to that attainable by the investing public, it seems impossible to doubt that while in particular cases prices may be distorted, yet the influence upon price of the body of speculators, taken as a whole, yields a considerable net advantage to society. The beneficial effect on price may be less than in the great produce markets, but there will still be a balance of good.

Realistic inquiry is equally necessary in dealing with the

question of the efficiency of competition in beating down the speculator's profits to a normal level; but some general observations may be made. The essential condition for effective competition in speculative operations is that of equal access to the sources of intelligence by persons of similar ability. Superior natural ability in a speculator is similar in its social effects to the possession of monopolised information which it has cost nothing to produce; its utilisation increases the aggregate wealth of the community, but gives opportunity to its possessor to spoil the public. It has already been argued that while the changing values of produce depend on general influences, intelligence of which is unrestricted, the values of securities vary also from particular causes of which knowledge and control are in some measures confined to a limited number of interested parties. This imperfect access to the sources of information, especially notable in the case of joint stock companies, must greatly limit the efficiency of competition, thereby allowing the individual, to exceed the social, net product. No doubt monopolised information cannot long be withheld from a vigilant market; it is published by the very operations in which it becomes effective, but it may be concealed from the general public for a sufficient time to allow of abnormal gains to its possessors. Without enumerating the parties—the company director, the auditor, and a host of others—in a position of differential advantage, it may perhaps be taken as established that in certain groups of securities competition acts very imperfectly in reducing the gain to be derived from exclusive knowledge to the value of its social productivity. To the extent, therefore, that the speculator is in possession of superior ability or monopolised information, his social justification is weakened, and historical prejudice against his operations is correspondingly vindicated.

When one turns to consider unorganised markets like those in land, it is easy to see that very imperfect competition may often result in the condition that the *direct* service of the speculator is enormously overpaid, and when there is added to this the consideration that the *indirect* effect of his operations is quite likely to be socially injurious, it becomes evident that the total effect of his activities may involve a very considerable loss to the community.

Summary.—The argument directed to determine the social service of the speculator on the Stock Exchange is somewhat elaborate and at present incomplete. It has tended to show that the *a priori* justification which attaches to the direct service of pro-

duction processes in general, for the reason that its payment is derived from, and confined within, the social value of its out-put, holds for that of the speculator, but only in the presence of competition sufficiently free to eliminate from his superior intelligence, any value other than that derived from its social productivity. In fact, however, this competition being imperfect, opportunity is given for abnormal profits, and consequently the investment of resources in speculative operations tends to be pressed beyond that margin adjustment at which it is socially desirable.

The extent of this competition is a question of fact which can be answered only by the examination of each market, or, indeed, of each set of transactions. The presence of completely free competition is a guarantee that resources are invested in the reduction and bearing of Uncertainty up to that margin which is socially desirable, and therefore that the direct service of the speculator yields a net social gain. But as competition declines in efficiency the existence of this gain becomes less and less probable, and in such unorganised markets as those in land it is likely that there is a very considerable misapplication of resources, and therefore a large social waste. The indirect effects of the speculator's operations being unrelated to any social payment need to be separately estimated. It was argued that while price regulation was of greater importance on the Stock Exchange than in the produce markets, speculative influence was less likely to establish accurate prices in the former than in the latter market, and that no argument as to the total effects of speculation could be extended from one to the other. The question whether or not speculative regulation of price shows a net gain to society is again a question of fact to be separately determined for each market; it turns upon such conditions as the volume of commodity and the extent to which knowledge of the future is possible.

In the particular case of the Stock Exchange it appears to be highly likely that competition is sufficiently free to ensure a considerable net social gain from the direct service of the speculator, and while no opinion can be expressed as to the importance of the pleasures and the moral evils of speculation, it appears to be almost certain that the remaining indirect effect—that on price—yields a gain to the community, and, no payment being made for this gain, it forms a net addition to the contribution of the speculator to the efficiency of the market.

Finally these results may be translated into the terms employed in the beginning of this paper.

The incentive to the speculator is derived from the profit to

be drawn from the transport of goods between two prices separated by an interval of time; his direct product is therefore the increased utility which this act adds to the goods carried. This utility appears on the Stock Exchange as an increased exchangeability of securities which facilitates the continuous redistribution of the disutilities involved in the supply of capital, thereby reducing the Financial Insecurity attaching to holders of stocks and shares.

In addition to this primary service his operations do, in fact, cause prices to approximate more closely to investment values; they therefore yield a secondary indirect product which appears as a reduction in the amount of Uncertainty falling upon investors in general.

Together these two services reduce the deterrents to the supply of capital, lower its supply price, and reduce the cost of production of business undertakings.

F. LAVINGTON

THE CENSUS OF PRODUCTION AND THE NATIONAL DIVIDEND.

THE Report of the First Census of Production of the United Kingdom (1907)¹ affords an opportunity of considering the statistics of production and of income with reference to each other, and with reference to the economic conceptions of production, distribution, value, and income.

In the General Report by Mr. A. W. Flux, which precedes the detailed tables, we find not only a descriptive summary of the new statistical results obtained, but also an attempt by means of sweeping and bold estimates to obtain a complete valuation of all goods and services produced or rendered in the United Kingdom, and a comparison of this total with current estimates of income. In the following summary table, which is re-arranged from the very involved analysis in the report, the only values that were obtained directly by statistical inquiry are those of net outputs, customs and excise, and excess of imports; the rest are estimated from rough and imperfect data. The merchanting and carriage of goods from the ports and (in various stages of manufacture) from factory to factory is estimated as costing from 10 to 15 per cent. of the value of imported materials; and the transport of goods from the ports or factories to the retailers appears to be taken as about 25 per cent. of their value, while 35 per cent. more is added for retailers' profits and expenses. From comparison with the population census of 1901, it is supposed that about one million workers employed in small workshops or on their own account were omitted from the census, and it is suggested that their net product averages about £50 per person per annum. The increase of investments abroad is from Sir G. Paish's estimate read to the Royal Statistical Society. The cost of maintenance of capital is based on a rough estimate of the value of buildings and plant combined with a sketchy inquiry as to the percentage to be allowed. The remaining item, as to services not productive industrially, is discussed below. Though the estimates have so slight an apparent basis, it seems

probable that a good deal of care has been spent in considering them, and wide margins of error (expressed as \pm in the following table) are assigned in the report, so that it is believed confidently by the compilers that "gross inaccuracy is excluded."

TABLE I.

	£	
Net output of industries and mining	690,000,000	
Certain raw materials produced and used at home	18,000,000	
Net output of agriculture ...	180,000,000	
Net output of fisheries ...	12,000,000	
Result of direct inquiry ...		900,000,000
Estimated omissions ...	50,000,000	
Duties on home goods ...	48,000,000	
Merchanting and carriage before completion ...	35,000,000 \pm 8,000,000	
Merchanting and carriage of exports to ports ...	45,000,000 \pm 10,000,000	
Merchanting and carriage and retailers' expenses:—		
of home goods	365,000,000 \pm 50,000,000	
of imports ...	127,000,000 \pm 17,000,000	
Occupation of houses, personal services, &c. ...	375,000,000 \pm 25,000,000	
Total of estimates and duties		1,045,000,000 \pm 110,000,000
<i>Value of net output of goods and services produced or rendered in the United Kingdom</i>		1,945,000,000 \pm 110,000,000
Value at port of imports less value of exports...	145,000,000	
Duties on imports	15,000,000	
Increase in value of investments abroad	100,000,000	
		260,000,000
<i>Value of goods and services available for consumption or saving by the people of the United Kingdom ..</i>		2,205,000,000 \pm 110,000,000
Less cost of maintenance of home capital		175,000,000 \pm 5,000,000
Net income of the United Kingdom		£2,030,000,000 \pm 115,000,000

The total thus obtained on the productive side may be compared with total income as hitherto measured.

TABLE II.

	£
1907. Estimated income above income tax limit ...	880,000,000
,, wages	740,000,000
,, intermediate income	325,000,000
Total income	£1,945,000,000

¹ Of course the various errors may tend to balance one another, and the probable error of the sum is less than the total of the probable errors of the parts; but it hardly seems worth while to apply the theory of probability to such rough estimates, especially as no error is assigned to omissions or to investments. The total given in the report, where the items are grouped differently, is £1,918,000,000 to £2,158,000,000.

In this table Income (above £160) and Wages are estimated on the method used in *THE ECONOMIC JOURNAL*, 1904; p. 459, brought up to date; while Intermediate Income, that received as small salaries or profits, or small pensions, interests, &c., is estimated from the Report¹ on Incomes to the British Association, printed in the *Statistical Journal*, December, 1910, modified for application to 1907. If we may suppose that the various statements in Table I. were not influenced by knowledge of aggregate income as generally estimated, the agreement is very remarkable, for no one can hope to get such a total correct within 5 per cent. It certainly appears that "gross inaccuracy is excluded" so far as the total is concerned, if we may regard an error of 5 per cent. as venial.

The total may be exhibited in another form:—

TABLE III.

	£	
Gross output of agriculture, mining, and industry, including raw material, home or imported, and excluding duplication	1,360,000,000	
Carriage, merchandising and retailing connected with home goods	442,000,000	
Duties on home goods	48,000,000	
Value of goods produced or finished at home when delivered to customer or on ship		1,850,000,000
Imports ready for consumption	220,000,000	
Duties on, transport and retailing of, such imports	140,000,000	
		360,000,000
Total for consumption or export	2,210,000,000	
Subtract exports...		465,000,000
Total goods for home consumption or saving...	£1,745,000,000 ± 80,000,000 ²	

Net output, as used in Table I., "expresses completely and without reduplication the total amount by which the value (at works) of the products of . . . the group, taken as a whole, exceeded the cost (at works) of the materials purchased from "outside." Gross output in Table III. includes the value of raw materials, and of goods imported and manufactured or finished at home; but goods passing through more than one factory are only counted once. The value of material goods ready for use was then £1,745,000,000.

It was found possible to separate capital goods, "such as, by

¹ Before this report (September, 1910) intermediate income had been estimated by me at £100,000,000 less.

² Then the former total, £2,030,000,000, is thus obtained:—subtract £175,000,000 as above and also £15,000,000 imports for maintenance of capital or stock, add £100,000,000 invested abroad, and £375,000,000 houses, services, &c.

Production not to duplicate entries. The governing method was to reckon the net output of each unit, by subtracting the value of all things delivered to the unit from that of all things delivered by it. In the case of industry, allowance is finally made for the maintenance of capital; in agriculture it had to be assumed that the condition of the soil was on the whole the same at the end as at the beginning. In the case of mines and quarries, no allowance is made for depletion of value; royalties are thus treated as income. In those cases such as the postal service, shipbuilding in dockyards, and other undertakings by the central or local governments, the product is valued, in one category or another, at the net cost of production; thus, if profits are made they are nowhere included as income, and, if there is no question of profits, it is assumed that there is no excess of value of the finished product over the cost. Thus a substantial part of the national income is ignored.

No serious attempt is made, or can be made, to separate goods from services. In Table I. we pass from the net output of material goods to a composite item including transport and merchants' services, and then to direct services of persons and direct services of capital, such as house accommodation. We are left with the familiar difficulties that furniture provides satisfaction of the same nature as houses, and that there is no line that separates paid from unpaid domestic services. In any case, the total value of production, like the total income, is a matter of arbitrary delimitation.

Some people attach importance to the aggregate of material goods ready for consumption that are available for a nation. They will find it very difficult to obtain any estimate from the report, even if they can frame a definition. The material goods for personal consumption of Table V. (£1,325,000,000) are called in the report "goods and services consumed or exchanged for services by classes engaged in production and distribution," and are intended to be reckoned at the prices paid by the consumer as they reach his hands. The next item, abbreviated into "services and houses," £375,000,000 ("goods consumed or exchanged for services by classes engaged in supplying services" in the Report), is composed of several roughly estimated items: (i) Income from ownership of buildings not used for production, assumed to be the value of the services rendered; (ii) railway and tramway revenue from passenger service, less value of coal consumed and destruction of capital goods, and less receipts from commercial travellers; this is assumed to equal the value of services rendered to non-business travellers; it involves the distinction between travelling on

business and of necessity or on pleasure, and assumes that the value of a railway ticket is equal to the price paid for it; (iii) the part of postal service which is not for business; (iv) the services of domestic servants, taken as equal in value to the aggregate of wages and the value of board and lodging; (v) the services of the central and local government, so far as not already reckoned in production, whether as duties or as goods produced by the governments; (vi) the services of the professional and artistic classes and of the business groups not already reckoned in (v) or in the Census; (vii) some other persons rendering direct service.

Two points arise out of this category: first, that there is no universal means of valuing services rendered in production apart from services rendered directly; second, that such services can only be valued by estimating the income of those performing them, while material goods and a great part of transport services can be valued by their selling price in the open market. The distinction, if there be one, between the value on the productive side and the income of occupied persons on the receipt side, can only be preserved over an undefined part of national income.* In fact, we get only a very partially new estimate of national income from the Census. The "net product" is exhausted (after maintenance of capital) by rents, interests, profits, salaries and wages, and these all appear or are estimated in income tax returns, "intermediate" income and wages.

Unfortunately, the Report does not provide material for checking any of the former estimates of income, owing to the classification by industries as a whole, which is necessarily adopted. Thus, the agricultural total would only enable us to get at the unknown total of farmer's profits,¹ if we could isolate agricultural rent and interest and wages by other reckonings, and the estimates are so hazardous as to make the remainder doubtful to a prohibitory degree; and other cases are similar.

It will have been noticed that duties are included in the value of goods to the consumers, and therefore as part of the national income, while the governmental services for which the duties pay are not included. Now a man receiving a professional income of £500 in return for services, may pay £15 in direct taxation, corresponding to £15 worth of governmental services, and have so much less with which to purchase other services; whereas, if he spent £10 on spirits and tobacco, he receives the £10 worth of goods himself, and also pays for (say) £7 worth of government

¹ Practically farmers' incomes are only included in the income tax net assessments if their rents are over £480, and they are then assumed to be one-third of rent

services, as when a purchaser buys a pound of tea and receives a handsome picture into the bargain. This specious argument, that in indirect taxation you get government services for nothing, has, I think, not been noticed by Tariff Reformers!

In the method of the Report the government services paid for by indirect taxation are not counted as of any further value. This seems an unnecessarily complicated method; it would have been simpler to leave out the addition to net product, and value the services in full. But perhaps the writer wished to force readers to consider interesting problems relating to consumers' surplus. Goods in general are worth to all but the marginal purchasers more than they pay for them.

In the case of goods whose price is raised by taxation, so much is cut off from the consumers' surplus and so much is spent on public services; the report assumes that the value of the services equals the amount of taxation, but of course it does not follow that this value equals the detriment to the consumer. In the case of direct taxation the taxed individual is the poorer by precisely the amount of the tax. Hence, whatever way we make our measurements, we are involved in difficult questions of theory and practice. The difficulty originally arises from the fact that value in exchange, which affords the only possible method of valuing production, depends on other factors as well as on the cost of production.

A shifting of taxation from direct collection to indirect would involve (by the method adopted), if the prices rose, an increase in the value of goods and a decrease in the value of services; but official services are equally valuable whether paid for by duties or from income tax, and we can only harmonise the calculation by supposing that lost consumers' surplus is turned into official services behind the back of the accountant. But when part of the incidence of taxation is on the manufacturer (and, of course, in the case of monopoly a great part of it may be), the net product of manufacture, as valued, would fall to the extent of part of the yield of the duty. Taking the extreme case where the manufacturer paid the whole of the duty and did not raise the price of his goods,¹ it appears that the corresponding amount of official services would completely disappear from the aggregate income, whereas in fact there would only be a transference of outgoings to the government from the income-tax payer to the manufac-

¹ So that, e.g. the first and sixth items in Table I. become £680,000,000 and £58,000,000 instead of £690,000,000 and £48,000,000. Then the eleventh item would be reduced from £375,000,000 to £365,000,000 by the subtraction of an additional £10,000,000 from item (v.), p. 58.

turer. On the other hand, in the same case the net assessments to income tax would be reduced, since the manufacturer is only assessed on his profits, and Table II. and Table I. would remain comparable. It appears, then, that the aggregate national income may depend on the method of taxation, by whatever method the aggregate is estimated, even if we suppose that taxation has no effect on the amount of various classes of goods produced. The more successfully taxation is transferred to monopolists, the less the apparent income.

These, and other considerations not arising from the report (such as the difference of marginal utility of money to persons of various incomes, and the continual changes in purchasing power of money), tend to show that Aggregate Income, however measured, is of the nature of a numerical total, whose contents depends on arbitrary definition, and has no very close relation to welfare. Nevertheless, as is generally the case with statistical totals, it can be used for observing changes so great as to render unimportant the probably minor changes in the nature of its content, or changes over a short period when there is strong reason to believe that "other things" are not only "supposed equal" but are, in fact, nearly "equal."

Apart from the analysis of the National Dividend the results of the Census are mainly of statistical, rather than pure economic, interest. Summary excerpts from the tables are likely to give rise to misleading ideas. Thus, one is tempted to say that the net output per wage-earner employed in mining and industry was £110, that (from other data) annual average earnings per wage-earner (man, woman and child) was probably about £50, and that consequently about £60 is produced per wage-earner beyond his wages; while in agriculture the net output per person occupied (including farmers) was £83 in Great Britain, where the average wage was per annum £45. But these figures are subject to so many qualifications as to be nearly valueless. The net output has to provide for salaries, depreciation of capital, and wear and tear of machinery, interest and advertising, as well as rents, profits, earnings of working employers, and wages, and all these factors differ enormously from industry to industry. In some cases the wage-earner receives the great part of the value of the output, in other cases less than a quarter. The detailed figures are, on the other hand, very useful, for it is possible to tell within limits in the case of separate industries, what is the proportion of wages to the value of net or gross output. Thus, in the cotton industry about 73 per cent. of the gross output or selling value of the goods

goes for materials (including coal), about 17 per cent. to wages, and about 10 per cent. to the other factors just enumerated; or, put otherwise, the wage-earners receive 63 per cent. of the net output. This suggests that after depreciation is met, and advertising, selling expenses and salaries are paid, there is no great margin for increase of wages at the expense of profit.

Other very useful lines of analysis arising from the figures concern the relative importance of different industries as sources of production, and of the relation of home production to imported raw materials and imported manufactured goods; but here, again, so much depends on classification, and there is such enormous variety, that summary quotation is useless.

A. L. BOWLEY

REVIEWS

Wealth and Welfare. By A. C. PIGOU, Professor of Political Economy in the University of Cambridge. (London : Macmillan and Co. 1912.)

ORIGINALITY has set its unmistakable mark on Professor Pigou's work. But this distinction is not inconsistent with some resemblance to great predecessors. The author appears to have drawn inspiration from two very high authorities on wealth and welfare. The good which philanthropy and statesmanship should seek to realise is defined by him in accordance with Sidgwick's utilitarian philosophy ; to investigate the means conducive to that end he employs the methods perfected by Dr. Marshall. Like Sidgwick, Professor Pigou is not open to the imputation of materialism which is sometimes brought against economists. He lays down two propositions : "first, that welfare includes states of consciousness only, and not material things or conditions ; secondly, that welfare can be brought under the category of greater and less" (*Wealth and Welfare*, p. 1). These propositions (with their context) do not postulate a psychology (like that of J. S. Mill) specially favourable to utilitarianism ; but they do postulate the absence of a metaphysic (like that of T. H. Green) which denies practical significance to a conception such as "aggregate welfare" or "satisfaction." Much of our author's philosophy recalls Sidgwick's utilitarianism. For example, the following sentiment is not often met with outside the pages of Sidgwick : "If the life of an average workman contains, on the whole, more satisfaction than dissatisfaction, an increase in numbers, even though it leave economic welfare per head the same, involves an addition to economic welfare in the aggregate" (*loc. cit.* p. 29). Like Sidgwick, Professor Pigou is prepared to admit that, in Sidgwick's phrase (*Politics*, p. 583), "One person may be more capable of happiness than another." According to Professor Pigou, "We may sometimes be able to say that the more cultured Class A, has a keener appreciation of, and derives more satisfac-

tion from, practically all objects than the less cultured Class B does" (p. 48). On the assumption, however, of similarity of temperament (p. 25), we may conclude with Sidgwick that the more equal distribution of wealth tends to increase welfare. To diminish inequalities in the distribution of the national dividend (among the members of the nation) is accordingly one of the modes of welfare of which Professor Pigou investigates the conditions in one Part of his treatise. To diminish inequality of distribution in *time* is the proximate end to which another Part is directed. Much the longest of the separate Parts is directed to the increase of the national dividend. In investigating causes conducive to these proximate ends Professor Pigou brings to bear a mass of facts and a power of reasoning which in their combination find a parallel only in the *Principles of Economics*.

The inductive element of the treatise, being necessarily diffused, cannot easily be exhibited here. We have not space to exemplify our author's frequent citations of relevant evidence. Our readers must take on trust our impression that the verification of general reasoning by specific experience has been adequately performed, especially with regard to British labour and charity. Professor Pigou seems to have fully utilised the information obtainable from official reports and contemporary economic literature. He is aware, of course, that facts are often not apposite. What he says about one of the methods of increasing national income which he investigates—Purchasers' Associations—is probably of wide application: "No great weight can reasonably be attached to historical examples, and we are driven forward to an analytical study" (p. 239).

Of the numerous valuable contributions to economic theory which are presented in this treatise, the most brilliant, no doubt, are those which assume the form of mathematical reasoning. But a considerable degree of practical importance attaches to other arguments which take the classical form of deduction from psychological generalisations. Of this simple type is the argument directed against the popular reasoning that if a person is *enabled*, by a subsidy, to work for less, he will therefore be *willing* to work for less (p. 348). The experience of the old Poor Law is not so conclusive as is commonly supposed: the subsidised workmen did not accept a wage lower than the worth of their work to their employers; rather the worth of their work was very small, owing to the system of differential relief (p. 349). Of the same simple type are some deductions concerning the consequences of transferring resources from the rich to the poor;

a nice distinction being drawn between the fact and the expectation of such transferences. It makes a great difference whether the transference is voluntary or coercive; the expectation of the ~~former~~ leads to a diminution of the national dividend, while the new motive implied in the ~~latter~~ ^{former} tends to an increase of waiting and effort, and so of the dividend (p. 365). Again, the expectation of taxation to be levied at some future time will have a smaller restrictive influence on investment than an annual levy (p. 375). The influence will be particularly small when the tax is postponed till the investor's death. This consideration is to be set against, and may overbear, another presumption from which "it follows mathematically that, in general, the death-duty method [of taxation] is likely to trench on capital somewhat more than the income-tax method" (p. 353).

In the last proposition we have passed from simply psychological deductions to such as involve some tincture of mathematical reasoning, but not more than is generally presupposed in modern economic treatises. Even so classical an economist as M. De Foville now employs curves of supply and demand. In this category we may place Professor Pigou's theory of differential wage-rates, which occur when the wage payable for a particular kind of work performed by some men (say the more competent) is artificially raised above the wage payable for the same work performed by other men. With a minimum of aid from mathematics it is argued that "an artificial wage containing a differential element is less likely to imply a real transference from the relatively rich as a body to the relatively poor as a body than one which is free from such an element" (p. 335). The properties of the demand-curve afford important deductions. The great elasticity of the demand for labour is used as a premiss in arguing the old question whether labour-saving machinery is likely to be detrimental to the labouring classes. Going beyond Ricardo and J. S. Mill, Professor Pigou concludes that if an invention of the class considered diminishes the portion of the dividend accruing to labour, the magnitude of the diminution must be very small indeed (p. 89). And this, even on the supposition—which is, of course, far from being true in general—that the commodity in respect of which a constructive idea has been discovered is not consumed at all by the working classes. The same premiss employed in another argument leads to a conclusion of quite classical trenchancy: that "generally speaking, a transference of resources from the relatively rich to the relatively poor, brought about by interference with the natural

course of wages at any point, is unlikely to do otherwise than injure the national dividend, and therewith in the end the real income of the relatively poor" (p. 343).

We shall notice in a separate paragraph some more technical matters which we cannot hope to make interesting to the general reader. In this category is probably to be placed Professor Pigou's "curve of marginal supply prices." This original construction is useful as rendering more distinct, by contrast, the conception of a supply-curve. It is still more useful as an adjunct to the test for maximum utilisation of resources, the far-reaching principle that the more nearly equal marginal net products in all uses are, the larger the dividend is likely to be. This principle, as applied by Professor Pigou, is one of the splendid novelties occurring in this treatise the importance of which a reviewer cannot be expected upon short notice to gauge accurately. It is certainly of great theoretical interest. Another difficult theorem relates to the shape of demand-curves. They are in general *concave*, according to Professor Pigou (p. 210, and p. 402, where "convex" is doubtless a misprint for "concave"). This statement may give pause to the reader who recalls that demand-curves are treated as *convex* by one of the highest authorities on mathematical economics, Dupuit. His view is referred to in a former number of the *ECONOMIC JOURNAL* (Vol. X., p. 287) in connection with the suggestion that in certain circumstances of common occurrence the locus may be treated as a right line. There are thus before us three propositions: that, probably, the demand-curve is concave, is convex, is neither. Paradoxical as it sounds, all three propositions may be right. For the first two refer to different circumstances; and when we are ignorant which of the two cases is present, the third, the intermediate statement, may be appropriate. Dupuit supposes that, as the price is lowered, new strata of customers are reached; and so the curve stretches away from the axis representing price. Professor Pigou must be understood to suppose that the customers are, or may be, treated as a homogeneous body. Indeed, the more exact statement of his doctrine is that which he has given in an earlier work to which he refers. "In the case of a typical individual," the *third* differential coefficient of utility (with respect to money) is negative. The third differential coefficient of utility makes its unfamiliar appearance in connection with another doctrine, namely, that "a diminution in the inequality of distribution, in the sense of a diminution of the mean square deviation from the mean income, probably increases satisfaction." This follows from

the expression of (aggregate) utility in ascending powers of the said deviations; since the first term of the expansion is zero, the second negative, and "we know nothing to suggest whether the sum of the terms beyond the third is positive or negative" (p. 25).

The last proposition employs, in addition to the calculation of utility, the *second* mode of psychical mathematics, the calculation of probability. The probability involved is of the kind which has been called "unverified"; based on impressions which are the record of general experience, rather than on specific statistics. This species of probability is largely employed by Professor Pigou. It is the basis of his proof that the pursuit of economic welfare is compatible with higher aims: "When we have ascertained the effect of any cause on economic welfare we may, unless, of course, we have evidence to the contrary, regard this effect as *probably* equivalent in direction, though not in magnitude, to the effect on total welfare" (p. 61). The "unverified" species of probability is also employed in the construction of a new index-number (p. 47). Again, the principle underlies the presumption that certain phenomena are independent, or, at least, not closely correlated. Thus, the increase in the variability of real earnings in one industry might be so correlated with the (undiminished) variations in other industries as to diminish the variability of aggregate earnings (p. 421). So variations in the conditions of business might conceivably be compensated as to their psychological effects by mistakes in the business man's forecasts (p. 454). But such correlations are not *probable*. For "when a magnitude is made up of two parts, each of which varies more or less independently of the other, the variability of the whole is likely to be larger, the larger is the variability of either part" (p. 454).

The ordinary or statistical species of probability makes its appearance in the proposition "that the precision of an average is proportioned to the square root of the number of terms it contains" (p. 141). The principle is largely employed in connection with the fluctuations of business and labour. This species of probability enters along with utility into the following theorem. Let A and B be two similar persons who have each a fluctuating income, or, more exactly, "a variable consumption." Let the normal consumption of A be much larger than that of B. Then "the economic welfare of A and B jointly is increased by any system of transferences which, while leaving the average consumption of each unaltered, diminishes the variability of B's consumption, even though this diminution takes place at the cost

of an increase in the variability of A's consumption" (p. 402). It is similarly concluded that "the exposure of £100 to a scheme of uncertainty whose range is narrow, is easily seen to have a smaller value in the market than the exposure of this sum to a scheme whose range is broad" (p. 100). But does the latter argument require as a premiss—what the former argument no doubt does—the new proposition above noticed regarding the *third* differential coefficient of utility? Is not the proposition regarding the *second* differential which is commonly employed in the theory of insurance sufficient? But it is with diffidence that we suggest a correction in a matter relating to insurance. For our author's treatment of that subject is particularly lucid and instructive. He arrests attention by announcing—in connection with the advantages of "voluntary transference" to which we have referred—a way by which "transference can be made economically profitable to the transferor." The way is simply mutual insurance. Those who are fortunate and escape the loss which has been insured against, may be regarded as relatively rich, making a transference to persons who have become relatively poor (p. 366). It pays to undertake the risk of such transference, even though the adjustment between the premiums paid and the risks carried by different members is imperfect—within limits. The limits are less than ordinarily narrow in the case of workpeople (p. 367).

From the extracts which we have given it will be gathered that this treatise abounds in new ideas. But it is impossible by extracts to do justice to the author's logical arrangement of topics and lucid order.

"Ordinis hæc virtus erit . . .

Ut jam nunc dicat jam nunc debentia dici, Pleraque differat. . . ."

The latter part of the Horatian maxim proves a hard saying to many. But our author never dilates upon the obvious, never diverges into the irrelevant. He goes straight on, with even march, as it were along a Roman road. Flowers there are by the roadside, but not so frequent or so gaudy as to distract attention. Epigram is used only to clench argument. For example, as against the now fashionable doctrine that progress depends only on breeding, not at all on education and economic conditions, it is argued that though educational conditions may not influence offspring in the physical world, they do favour new births in the world of ideas. "Environments, in short, as well as people have children" (p. 59).

New ideas well presented are applied to many old problems. Even such familiar themes as the public control of monopoly and the public operation of industries are enlivened by *recherche* arguments. But the new weights put into the scales of deliberation are not over-estimated. For instance, with reference to the waste of resources caused by cost which hinders the movement of workpeople and by their mistakes in judging what is to their own interest; it is shown that where error of judgment exists, a cheapening of the cost of movement may prove socially *injurious*. The case is not merely academic, but is applicable to the aimless wanderings and useless changes of situation which are sometimes occasioned by facility of movement (p. 119). "But these exceptional cases are not subversive of old-established beliefs." When we are contemplating, from a general point of view, the consequences of these diminutions [in cost of movement and in falsity of judgment], "it is not the *possible*, but the *probable*, effect that concerns us" (p. 121). With regard to the more familiar considerations which Professor Pigou from time to time quite properly throws into the balance, we think that he might with advantage have more frequently referred to standard versions of similar arguments. Thus, in connection with the failure of harmony between private and social interest (p. 158, and context), there might have been expected a reference to Sidgwick's masterly treatment of that subject in the third book of his *Political Economy*. Again, when Professor Pigou places among the ultimate effects of an artificial wage-rate the circumstance "that the reward of employing power and waiting in industries in general being somewhat reduced these factors are likely to be forthcoming in somewhat diminished quantities" (p. 343), he might have referred—with an expression of assent or qualification—to some of the leading writers who have dwelt on that circumstance.

The originality which we have noted with respect to theory makes itself felt in several practical suggestions. The author has, we believe, only one precursor in the suggestion, that it is possible to increase the national dividend by imposing differential taxes on industries governed by the law of diminishing returns (p. 179). Many suggestions are directed to improvements in distribution. Munificence might be encouraged by honours and decorations, a new "order," not interfering with the attractions of old ones. On more familiar lines Professor Pigou advocates a modified form of income-tax which should exempt resources devoted to investment in general (not to insurance only) (p. 371).

He mentions with approbation Rignano's plan of taxing inheritances with increased severity at each successive devolution (p. 376). But he would confine taxes on unearned increments to "windfalls" (p. 370). He would accompany transferences from the rich to the poor with strict conditions (p. 392). He is in favour of "taking some cautious steps" towards a very drastic treatment of the very unfit (p. 55). Among plans for reducing fluctuations of earnings there is adduced Mr. Balfour's suggestion that when industry is depressed, a bounty should be given to firms making for foreign orders, in such wise as to enable them to accept contracts. Why not to firms making for British orders, suggests Professor Pigou (p. 481). He is "inclined to believe" that a very considerable net benefit would result from a method of steadying prices such as that proposed by Professor Irving Fisher (p. 438; *cp.* p. 464). There would be available for the purpose the index-number proposed by Professor Pigou, in which the prices of commodities at one of two compared epochs are weighted with the quantities of the commodities consumed at the other epoch (p. 46). One of the most ingeniously deduced proposals is the one about the value of which we are least confident. With a view to maximising the national dividend, it is concluded that in the regulation of railways discrimination, or the "value of service" principle, should be adopted at one (probably brief) stage of a country's development, and "this principle should give place to simple competition, or the cost of service principle, as soon as population has grown and demand has risen sufficiently to lift it out of that stage" (p. 234).

The last topic introduces our principal difference with Professor Pigou. He seems to us in his estimates of probabilities not always to attach sufficient weight to *authority*. For instance, on a question of definition, the use of the term "joint-cost," more deference might have been shown towards Professor Taussig (p. 216). We think it very improbable that an "accident of language" (p. 217) should have conduced to a "fallacious general argument" on the part of Professor Taussig (p. 219). The following passage brings out the matter at issue: "Principal Hadley and his followers, not content with demonstrating that fact [that a certain case *may* occur in practice], add, without argument, that this case is typical of the whole railway world, and suppose themselves, therefore, to have proved that the value of service principle ought to be followed in the determination of all railway rates. Such an unargued inference is plainly illegitimate" (p. 231). It is plainly legitimate, we think, to defer to

the unargued judgments of the leading authorities on railway economics with respect to the question whether a certain abstract case may be taken as typical of the actual facts. This is just one of those matters which are amenable to the Aristotelian doctrine that we ought to attend to the unargued pronouncements of the practically wise, who have acquired by experience a certain power of mental vision.

Here arises the question: How far do our author's theories belong to the category of practical wisdom, or to that higher kind of science which the philosopher distinguishes as grand and wonderful and difficult, but not useful for human purposes? Mathematical economics are certainly useful to some extent; but does the further elaboration which that study has received in this treatise imply a correspondingly large contribution to the Art of Political Economy? The analogy of mathematical physics does not help us to answer this question: the calculus of utility and probability is something so peculiar and unique. "Ai posteri L'ardua sentenza!"

F. Y. EDGEWORTH

Principles of Economics. Vol. II. By N. G. PIERSON. Translated from the Dutch by A. A. Wotzel. (London: Macmillan, 1912. Pp. xxiii+645. Price 10s. net.)

ECONOMISTS have been looking for this second instalment of Mr. Wotzel's translation of Pierson for some time, ten years having passed since the first volume appeared. It is worth the waiting for; the quality of the translation is well up to the high level of its predecessor, and it seems so free from doubtful passages that the last 300 pages probably lose little from missing revision by the author. One cause of the delay was the accidental destruction of a part of the manuscript. The present volume covers production and the revenues of the State. One long chapter deals with the place of self-interest in production. Qualifications of the doctrine of maximum satisfaction are brought out by an examination of concrete cases, for instance, the smoke nuisance (the total loss occasioned by which probably exceeds to an enormous extent the sum of the individual savings which are made by disregarding it) and the developments in railway transportation for which State action has been responsible. But there is no attempt to distil from the facts the fundamental principles which may be laid down in these matters, or to measure gains and losses against each other—as is done, for example, by Professor

Pigou in his recent book. In short, the method of the book tends to be that of pre-Marshall Economics; but, within the scope of his method, the author's acuteness, independence, and judgment are, on the whole, beyond praise, though possibly the common sense has here and there a trace of the hardness of outline which, for a time, made English Political Economy so unpopular.

Dr. Pierson's bias—not pronounced—is to justify the ways of trade. Thus: "Like a bodily pain (trade depression) serves as a useful warning; it does more: it gives a powerful incentive to do what is urgently needed to be done. We might even go further and say that, human nature being prone to sluggishness, depressions provide the stimulant without which there would be no progress." But the description of depressions and crises is thoroughly done, though the problem of the periodicity of the former is hardly approached. The same closeness of observation and absence of the refinements of theoretical analysis mark the treatment of trade unions, about which the author is not afraid to speak his mind. He inclines to think that "the power of capital" needs "the presence of some other power to hold it in check, and to inspire fear where the sense of duty or humanity is lacking," and allows that trade unions "possibly enable a working-class population, which has already risen above the ordinary level of welfare and enlightenment, to rise still further." However, those who expect from Dr. Pierson's belief that trade unions "can never be the means of raising a working-class population which still occupies a very low level," and his qualifications of the doctrine of maximum satisfaction, that he must fall into the arms of the more moderate socialists, will find themselves disappointed. "When we sound the depths of their (the socialists') philosophy, we soon touch the bottom. Lassalle performs the most astounding feats in logic . . . the economic wisdom of Flürscheim is below the lowest conceivable level. . . . (Marx's) errors are such as make it difficult for us to accept him as a strictly scientific thinker. Let us not look for science among these men, but rather for expressions of feeling. . . . Till now the strength of the Socialists has lain solely in their criticism. By that criticism, even though it be exaggerated, we must endeavour to benefit. So far as constructive theory is concerned, nothing of any value has yet been contributed by Socialists." On the subject of population, Malthus is closely followed; P. Leroy Beaulieu's alleged law, to the effect that the rate of increase falls as civilisation advances, is attacked; and neo-Malthusianism is

outspokenly discussed. To Protectionism Dr. Pierson is by no means favourably disposed, as he makes plain in the course of a vigorous discussion extending over nearly 100 pages, in which, however, there seems to be nothing strikingly novel. The land question in its relation to production is comprehensively and judiciously treated. On questions like this Dr. Pierson is at his best; as he is also (as one would expect from a Finance Minister of his speculative bent of mind) on topics of Public Finance. It is notable, however, that the modern demand for Progressive Taxation, beyond what is needed "to provide an easy transition from total exemption to full taxation," is regarded as indefensible. Taken as a whole, Dr. Pierson's work is leisurely and spacious, and treats of society in masses after the grand manner of the old school, which, it is to be hoped, will never expire.

S. J. CHAPMAN.

Political Economy. By S. J. CHAPMAN. (Home University Library of Modern Knowledge.) (London: Williams and Norgate. 1912. 1s.)

"THE explanations that will be presented are those which became current after the exact analysis begun by Jevons and Léon Walras had been perfected and applied to the whole field of economic phenomena by later writers, particularly by Dr. Marshall. Though the new generalisations were suggested at many points by mathematics, it is perfectly easy to represent them in simple language which implies no mathematical knowledge; and I shall try to do so" (pp. 7, 8).

If the implications of the first of these two sentences, and the statement embodied in the second, are accepted, criticism of Professor Chapman's book resolves itself into unqualified admiration of the judgment, skill, and subtlety which it displays.

But neither the implications nor the assertions seem to the present reviewer to be above challenge. To begin with the latter, which can be more briefly dealt with than the former. On p. 75 we read, "the price of a commodity will be the price at which equal quantities are demanded and supplied, provided that a slight addition to the supply would mean a supply price above the demand price, and a slight reduction of the supply would mean a supply price below the demand price. There may be, but there is not likely to be, more than one such price. It is only possible when increasing returns rules, and if it does, is least likely when demand is highly inelastic." If the reader who has

never seen or constructed a figure in which the (so-called) supply curve cuts the demand curve in three places, twice from below and once from above, understands the significance of the proviso contained in the above extract, and also perceives that a point of the unstable equilibrium, which that proviso excludes, must come between the two points of stable equilibrium which it allows to pass. Professor Chapman may call him as a witness in support of his assertion that it is "perfectly easy" to represent such conceptions effectively in non-mathematical language. *Fiat experimentum*. I would not for the world prejudice it.

The implications of the first sentence quoted above need more lengthened consideration. As interpreted by Professor Chapman's work, at any rate, they involve an approval of Dr. Marshall's deliberate (and very chivalrous) method of minimising and disguising to the utmost extent possible the revolutionary character of the new methods of which he is so eminent an exponent. This attempt to preserve as much as possible of the old terminology, and the traditional divisions and contrasts, in the face of the new principles, and to show how much substantial truth the admittedly imperfect statements of earlier writers contained is one of the leading characteristics of Dr. Marshall's work; and it stands in marked contrast with the somewhat truculent announcement made by Jevons to his brother, "In the last few months I have, fortunately, struck out what I have no doubt is the *true Theory of Economy*, so thorough-going and consistent, that I cannot now read other books on the subject without indignation." To find fault with Professor Chapman's handbook involves something very like a contention that, of the two, Jevons's indignation is likely to inspire a more fruitful treatment than Dr. Marshall's reverence!

And, indeed, the truth is that Professor Chapman constantly enunciates trenchant generalisations which cut across the classical traditions and reduce to mere practical differences of stress what they had taken as theoretical differences of principle; and then forgoes all the simplifications these generalisations suggest in order to preserve as primary the distinctions which they have really reduced to a secondary position.

Thus on p. 172 we read, "Workpeople have a value to the employer because . . . they create what has . . . a value to the consumers. . . . Similarly, the value of every other agent in production is the transmitted value of what it adds to production at the margin." Now "cost of production" is simply the sum of the market values of the agents or factors of production, and their

values are confessedly nothing but elements in the value of the product, dependent in its turn wholly upon the relative estimate formed by the consumers of that product in relation to others; and yet "cost price" is made throughout Professor Chapman's book to figure as an independent and, in a sense, antagonistic force, generating curves of "supply price" co-ordinate with the curves of "demand price," from which, on his own showing, they must derive the whole of their vitality. Indeed, the most ingenious and original chapter in the book is devoted to an elaborate attempt to work out a complete parallelism between the two. It is perfect as a piece of deductive reasoning, but it rests upon the startling assumption that every firm has unrestricted command of capital and of markets, and determines its output solely on consideration of the dimensions best suited to "the strength of its central organs" (p. 81). At the end of his study Professor Chapman seems to confess that his initial hypothesis is quite remote from the facts. Could he not have remained in close touch with those facts throughout his investigation if he had carried the great principle he announces boldly through? He would then, surely, have treated the whole direction of resources to ends as a continuous selection between alternatives, guided throughout by a weighing of the significance of the anticipated results, in which the "cost" of adopting any alternative is simply the relinquishing of some other alternative; reward and sacrifice alike being measured and determined by the ultimate significance of the respective products, as anticipated by the producers; the points at which things are bought and sold simply registering the relative success or failure of the anticipations under which the alternatives were selected, and tending to correct them.

In the same way Professor Chapman perceives quite clearly that the conception of "diminishing returns" was originally arrived at by treating one of the factors (land) as constant, and applying successive "doses" of the other factors to it; and also that this method is equally applicable to any other factor (labour, for example), and further, that whereas "labour" in the mass is incapable of rapid increase, yet it may be diverted from one purpose to another to an indefinite extent, and that the same holds of land; and likewise that one factor of production may change its proportion to another and yet the two "doses" thus differently composed may be equated; and that all values of factors of production are derived from the value of their products. Nevertheless, he maintains the old dictum that rent does not enter into cost, keeps the distinction between increasing and

diminishing returns as nearly as possible in its old place, and practically excludes land from his general formula of distribution. He defines rent as payment for differential values of any kind (whether of land or labour, for instance), and would admit apparently that it does not correspond to what the farmer pays his landlord any more than to what a rich man pays a fashionable surgeon, and yet he treats it in direct connection with land, and in doing so seems to conceal as far as he can all the theoretical identities he has recognised between land and other agents of production, burying them under insistence upon differences in degree which he utilises to maintain distinctions that no longer rest upon principle.

But it will be perceived that all this is a tilt against the authorised and current treatment of the subject, and not a criticism of Professor Chapman's book specifically at all. Granted that accepted methods are on the whole satisfactory, this book may be taken as an exposition that leaves nothing to be desired. Apart from all controvertible or controverted matter, too, it is particularly admirable in its insistence on the fact that "it is the impalpable subjective things in life, without a price, which give exchangeable goods their value" (p. 164), and in the firmness with which this central principle is held in the luminous and judicious survey of "problems of distribution" which closes the volume.

PHILIP H. WICKSTEED

The Laws of Supply and Demand. By G. B. DIBBLEE.
(London: Constable and Co. 1912. Pp. 289.)

THIS is a pugnacious book. It presents, in its author's words, "nothing less than a direct assault on the orthodox theory of political economy as established by early English economists." No emendations, however thorough, will suffice. The whole structure must be "swept away." "Infinite and reverent modifications of obvious errors have been used to buttress it up, but they were unnecessary, and they ought not to save it now." Such is the challenge. The author writes from the point of view of a business man, irritated by the unreality of the economic theories he imbibed at college. To do justice to his position it is necessary to quote his explanation in full:—

"My present study is not founded so much on a rather limited reading as on twenty years of reflection and experience in more than one kind of business in three countries. The result is,

unfortunately, a certain amount of unfairness on my part in delivering apparently random criticisms on a body of economic doctrines rather vaguely indicated as the orthodox English school, without selecting any particular author or book or even any precise argument, except in the case of Mill's law of value. It is equally true that the later defenders and modifiers of these doctrines have been neglected in these pages, and no notice has been taken of the number of cases where criticisms have been accepted and embodied and attacks skilfully parried. If this work were put forward as primarily scientific, such omissions would be indefensible; yet since its object is practical, and as in order to be practical one must be brief, concentrated, and concerned chiefly with exposition rather than with criticism or controversy, I have been obliged to neglect the unessential. I consider the modern modifications of the old school unessential. The old school stands unreplaced. Its original language is still current, and the men between forty and fifty, who guide the actual currents of business, know no other."

This explanation does not suffice to avert the criticism which it anticipates. Among the "attacks" which have been "parried" are many which Mr. Dibblee himself labours in this volume, generally through some misconceptions of the nature of the doctrines attacked. Again, the criticisms which "have been accepted and embodied" include a number of Mr. Dibblee's own; and as when he expounds them he evidently attaches to them great importance, it is not easy to see why they should be dismissed as "unessential" when they become the accepted modifications of orthodoxy. His answer seems to be that business men are not aware of these modifications, but still talk "the original language." But this, though a good reason for increasing the blame attached to the old doctrines, is a bad reason for demanding the abolition of the new, and a still worse reason for refusing to take notice of the new. If Mr. Dibblee could have his way, and abolish the old orthodoxy root-and-branch, would business men cease to talk the old language? The truth is they would talk the old language whatever the new might be. One is almost surprised in face of this to find Mr. Dibblee throw in his lot with the practical men in their controversy with the economists. For it is the practical men, and not the economists, who still mutter the old formulæ which are the principal objects of his ire. In particular, the remark of the New York lawyer, with which the book opens, that the tariff could have no influence on prices, because they were regulated by supply and demand, is an

absurdity to which no economist who has ever existed could have given utterance.

It is not quite clear for what audience this book is intended. It is true that we are told, "It was not for economists that this discussion was primarily undertaken. It is rather to be described as a practical investigation of principles underlying the habits of business men." But there is no inconsistency between these two aims. The economist may well be grateful for the acute analysis of the habits of business men which Mr. Dibblee provides. And it is difficult to see how he can hope to obtain readers outside the ranks of economists. In spite of the repudiation in the passage quoted earlier of "scientific" or "controversial" intention, the book is essentially controversial. The starting point of each argument is the criticism of some economic doctrines treated frequently in an allusive way. When he leaves controversy behind, the author propounds formal theorems with more elaborateness and precision than lucidity. His difficult style and technical, even mathematical, language are fitted far better for "scientific" than for the "practical" reader. From the point of view of "exposition" it would be difficult to imagine a worse book.

But it is a book which is well worth the consideration of those economists who have the patience for winnowing the wheat from a plentiful admixture of chaff, and can suppress their irritation at the unfairness of many of the writer's attacks upon them. For Mr. Dibblee fails altogether to understand the point of view of the ordinary economist. He himself quite frankly deals with the problems as they present themselves to the business man; and along this line he contributes many valuable suggestions. But the haste in drawing conclusions, and the proneness to exaggerate the importance of the points on which he fastens, qualities which are the inevitable counterpart of the inspiring zest with which he throws himself into his task, and the freshness and independence of his treatment, lead him to forget that there is another point of view from which economic problems can profitably be studied. The point of view of the State or society, which economists for the most part adopt, is in several ways different from that of the business man. For one thing, it involves a longer period of time; and it is over the question of time that Mr. Dibblee comes most conspicuously to grief. He fails entirely to appreciate the conception of the "long run," a phrase for which he has the most absolute contempt. Economists will be surprised to learn that this phrase arose out of a kindly, but

mistaken, "theory of perfectibility," that it was originated by men "who believed passionately in a possible state of perfection in the material world, in the power of mankind to recognise it, and in a natural inclination to move in that direction." This inability to understand "the long run," and its attendant assumption, "other things being equal," runs throughout the whole book and vitiates many of the author's most triumphant pieces of reasoning. It leads him to make an attack on the symmetrical treatment of supply and demand, and the principal laws relating to them, under a misapprehension of their nature. While he imagines himself to be overthrowing the ordinary theories of long-period value, he is in reality making a contribution to the study of short-period value.

His contribution, so regarded, is a very useful one, and his analysis throughout is singularly penetrating and acute. Of especial interest is his treatment of "cost of production," an "unilluminating" phrase which he holds responsible for much error and misunderstanding. In his view, "it costs more to sell most articles than to make them": a proposition which is certainly worth examination, supported as it is by interesting evidence and estimates. "Productive power has outstripped desire," and it is "selling" which is the chief difficulty for society to-day as for the man of business.

"The productive power of modern industry is so tremendous that a comparatively small amount of capital laid down in some dozen suitable English, German, and American towns with a well-trained industrial population, will be able to produce most kinds of goods capable of indefinite multiplication sufficient for the whole world."

Our industrial system has two devices for dealing with this embarrassing product, the control of supply and the manipulation of demand. The control of supply includes not merely the recognised and valuable function of adjustment between different places and different periods of time, but, in addition, a permanent "holding back." "If we open the sluices of modern productive resources developed under the factory system in the last seventy years, goods pour out at an amazingly cheap, and ever cheaper rate, and the market is flooded beyond any possibility of commercial remuneration." The duty of the seller, accordingly, "is one of holding back the immense output of modern production and allowing it to filter slowly through their hands." It does not occur to Mr. Dibblee that this can hardly be a very valuable service for the social point of view. His confusion wherever the

element of time enters in prevents him from distinguishing clearly between a beneficial "holding back" to meet and to avert fluctuations, and a "holding back" of this permanent and statical nature which is plainly wasteful. A similar uncertainty of conclusion marks his treatment of the "manipulation of demand." We are told that "misrepresentation has become a chief part of the advertiser's stock-in-trade," that "nearly all trade is, from a psychological necessity, dependent on a habit of misrepresentation which is both absurd and dangerous," and the talents required for a successful seller are approvingly illustrated by the remark of a man who had made a large fortune: "Some people think me not very bright, and I cannot make a good speech nor tell a good story; but I can sell a man a bad picture which he doesn't want." A Socialist could not desire a more trenchant exposure of the wastes involved in our present commercial system; and it is somewhat surprising to find Mr. Dibblee after this analysis deducing from the very magnitude of the part played by "the manipulation of demand" and "the control of supply" an additional argument against State Socialism. The State, he tells us, is a bad seller, and unfitted for the difficult task of "holding back supply"; but one who follows his ruthless description of these processes may reasonably wonder whether their performance is on the balance socially desirable.

But the value of Mr. Dibblee's book does not lie so much in his main arguments, as in the ideas which he continually throws out by the way. "Suggestive" is the epithet which can most properly be used to describe his work. He pours forth a stream of shrewd observations upon every kind of topic, casual labour, women's wages, and the like, which invariably interest and stimulate even when they do not carry conviction; his psychological analyses are particularly acute. In addition, he brings to his task a vivid imagination, a useful descriptive power, and a happy knack of illuminating a difficult point by some apt illustration or telling phrase.

What, for instance, could be better than the following illustration of the relations between local markets and the larger ones in which they are embraced? "We must imagine the small markets as being centres of extreme fluidity in an encompassing medium of lesser but partial fluidity, so that local agitations can affect the slower-moving enveloping medium, and carry intermediate vibrations to other local centres."

Or, in another vein, what could better hit off the Anti-Trust legislation in the United States, with its uncertain principles and

vague phrases about combination "in restraint of trade," than the remark that it is an attempt "to emulate the legislation of the White King in *Alice in Wonderland* when he wrote : Rule I. 'All persons more than a mile high to leave the court' "?

Or, again, what neater definition of "necessaries" could be given than : "we are accustomed to call those objects the 'necessaries of life' where our habits permit very little choice in selection" ?

These are merely instances of the fresh ideas and apt remarks which are scattered on every other page, and serve to enliven frequent tedious wastes of muddled reasoning, and misunderstanding.

H. D. HENDERSON

The Constitution and Finance of English, Scottish, and Irish Joint-Stock Companies to 1720. By W. R. SCOTT, Litt.D. (Cambridge : University Press. 1912. Vol. I. Pp. lvi + 488.)

WE have now the whole of Dr. Scott's book, of which the second and third volumes were reviewed here in March and September, 1911. This volume contains the general history of the joint-stock : its predecessors gave us the individual histories of all the companies. The three form a work of which British historical scholarship may be proud. Some thirty distinct MS. collections have been consulted—counting the Museum and the Record Office each only as one ; there is a general bibliography of about five hundred works, and a pamphlet bibliography almost as long, not to mention bibliographies of official publications and newspapers. It is no exaggeration to say that dozens of books, each embodying a serious piece of historical research, could have been carved out of Dr. Scott's materials.

The method adopted in this volume, as foreshadowed in a remarkable appendix to Vol. III., is the study of joint-stock company financial history in close connection with national financial history. This raises a number of difficult problems in selection and arrangement. At times one is tempted to think that sections of the general history are not sufficiently relevant to the matter of joint-stock to justify the very full treatment which they receive ; at others one wonders on what principle certain aspects of financial or general economic history have been omitted. But the method itself is fully justified. From the beginning, when the Russia Company shipped naval stores from the White Sea, the

Mines Royal sought "calamine stone" for gun-metal, and the Mineral and Battery Works made the guns; down through the age of the joint-stock privateering syndicates that "singd the beard of the King of Spain"; through the history of the East India Company that struggled with the Dutch, and the Hudson Bay Company that got parliamentary sanction because it was a thorn driven into the side of the French; through the monopolies controversy and the Land Bank controversy, where politics so often decided economic judgments, away to the struggle between the two East India Companies and the greater struggle between the South Sea Company and the Bank for the profit of bearing the National Debt: through all this, and much more, the fortunes of the chief companies are bound up with the fortunes of the State. And from time to time the State made use of their capital or their credit, from the day when Elizabeth took long credit from the Russia Company to the final politico-economic adventure of government with the South Sea directors.

It is for the reign of Elizabeth that Dr. Scott's method is perhaps most instructive to the general historian. The Queen lends men of war to the Africa Company and takes shares in the raiding syndicates, partly to get profit, partly to get political control. The full study of her official and unofficial finance explains each stage and turn of her notorious parsimony, and justifies it. Right through the book the general historian is fortified or corrected by the less technical results of Dr. Scott's financial research. It is perhaps not difficult to correct the finance of Froude [p. 81 n.]; but Gardiner, who is also corrected more than once [*e.g.*, p. 245], is nobler game. The noblest of all is Adam Smith. With him we get on to more technical ground. Very little, indeed, of his generalisations about joint-stock survives some dozen pages of Dr. Scott's criticism. Some of the points, as the critic puts them, deserve to be summarised.

Firstly, Smith absorbed what Dr. Scott holds to have been a mere eighteenth-century prejudice against the joint-stock system itself—"the pernicious art of stock-jobbing"—based upon a distorted memory of the period 1695-1720. The South Sea directors were corrupt enough; but had they been never so pure their faith in the virtues of a "fund of credit," which almost all their contemporaries shared, and which had no necessary connection with "stock-jobbing," was bound to lead to a crash sooner or later. "The Fire Insurance Company, the Bank of England, and the Million Bank all carried on business without any working capital provided by the members" [p. 344], and the South Sea

did the same, only on a larger scale. Corruption was not specially characteristic of the companies of the later seventeenth and early eighteenth centuries [pp. 451, 463]. The main cause of the crisis of 1696-7 was not "stock-jobbing" [p. 357]: the stock-jobber was the scapegoat. The companies of that time were not all "bubbles"—that is, fraudulent or irrational schemes—any more than were the companies of 1720.

Starting with a prejudice against joint-stock and a knowledge derived mainly from Anderson, Smith picked out—sometimes, according to Dr. Scott [p. 450], invented—for animadversion unsuccessful periods in the history of such concerns as the East India Company and the Africa Company, and omitted successful and creditable episodes. That joint-stock foreign trading companies could not hold their own against private adventurers, as Smith maintained, is not true of the period under review; the few successful interlopers were usually themselves small joint-stock concerns. The famous dictum that joint-stock—apart from monopoly—is only likely to succeed in routine businesses is also challenged. The Bank of England had no monopoly against private bankers and its early days were "purely experimental." The early water companies had not complete monopoly and were highly experimental. "The capital of companies was used in the main for ventures which were either altogether new trades or revived industries, or those proposed to be conducted by new methods; or again, in cases where there was an exceptional degree of risk" [p. 461]. Many succeeded, but not by routine.

Naturally, Dr. Scott is able to correct historians of commercial crises—like Juglar and Marx Wirth—who have not his first-hand knowledge. [See pp. 390, 464, 468.] In his references to Jevons and the sun-spots, however, he takes no account of the recent work of Jevons' son. He can easily traverse a confident dictum of Sombart that the really transferable share only came into existence in the eighteenth century. As early as 1563, "Leicester had directed a share should be sold, just as a modern stockholder gives an order to his broker" [p. 443, and Vol. II., p. 416 n.], and there was abundance of sale in the seventeenth century. True, new shareholders in the East India Company had to pay a heavy sum for their "freedom" in the early days, just as in regulated companies [p. 152]; and this made shares imperfectly negotiable. But after 1624 the fine was so much reduced that, "on any considerable purchase," it was no more than a moderate registration fee. Ultimately it was abolished. In any

case, the fully developed stock-dealing of the last decade of the seventeenth century, with Houghton's price-lists and his nicknames for companies with long-winded titles [p. 329], obviously presupposes a good many years of perfectly negotiable securities.

Dr. Scott deals rather briefly in his first chapter with "the various lines of economic development which converge in the first English joint-stock companies," but he says all that need be said. Without losing himself in the antiquities of the *commenda*, the *societas*, and the Bank of St. George, he points out the scanty evidence for direct influence from the continent in the early sixteenth century. After reading his earlier volumes, especially the history of the German speculators in the Mines Royal, one had wondered what weight he would assign to the transferable shares in German mining enterprises that were well-known in the fifteenth century. He does not develop the point, though he refers to it. No doubt he is right to follow in the main more obvious lines of growth. All the machinery of government and the corporate life are to be found in the later guilds or in the Merchant Adventurers. When the Merchant Guild of Dublin in 1452 appoints buyers and then shares out their purchases among the members, or when the Newcastle Adventurers, in 1599, also make a corporate purchase, we are brought very near to joint-stock action. "When such bargains became the rule . . . the regulated company would be turned into a joint-stock company" [p. 12]. Moreover, the early joint-stock companies often paid dividends in goods, a further link with the older corporate purchases and sharings; while freemen of the Newcastle Merchant Adventurers, at any rate, "in small bodies entered into partnership" [p. 11]. Given a permanent partnership of all the members in a fairly small society, such as were the earlier joint-stock enterprises, and the transformation is complete. "The Russia Company came into existence with a complete internal organisation, which in the main was transferred from the previously existing type of corporation. No provision was made in the charter for any of the functions that would arise out of this company being formed on a joint-stock basis" [p. 21].

The growth of "joint-stock characteristics" can be traced gradually over a period of a century and a half. In the sixteenth century, and far down the seventeenth, the "share" was a fixed fraction of the enterprise, varying in monetary amount as the business varied; not, as to-day, a thing with a fixed denomination, of which less or more may be issued according to the business situation [pp. 44-5]. Hence the difficulty of getting calls paid

up, for the shareholder never knew his maximum liability. Hence, also the subdivision of shares into "halves, quarters, and even eighths," in the Mines Royal as early as 1571 [p. 45]. A little later we do, no doubt, get the Frobisher expeditions, in connection with which it was resolved that £100 was to be reckoned "one single part or share in stok of the company"; but Dr. Scott only places the landmark which indicates the beginning of the modern conception of a share at "the doubling of the capital, reckoned as paid up, by the East India Company in 1682" [p. 304]. "As long as the capital was divided into 'portions,' or shares, any appreciation of the property was reflected mainly in the dividend"; the "watering" of 1682 involves a new conception.

Subsidiary companies, which seem so very modern, appear already in the Mineral and Battery Works in 1571 [pp. 58-9. See also Vol. II.]. The term director first appears in a charter, that of the Africa Company, in 1618; but the concern had at its head, like the older regulated companies, a Governor and a Deputy-Governor. The twelve directors were the Governor's Council [p. 151]. The first traces of limited liability occur in the Fishery Society in 1634. There had been a deficit and it was resolved that capital subscribed from that time forward should be exempt from liability for this deficit [p. 228]. Then, in 1662, limitations of liability are granted to the East India, Africa, and Royal Fishery Companies by Act of Parliament [p. 270]. Adam Smith, by the way, was wrong in supposing that all chartered undertakings enjoyed this privilege [p. 447].

At the time when it doubled its nominal capital the East India Company had for many years indulged in borrowings, which Dr. Scott calls "a species of striving towards the modern debentures" [p. 304]. Indeed, companies had borrowed on registered bonds from a very early date. By the end of the seventeenth century we have bonds of a different sort, "which were in effect preference shares," in the Mine Adventurers' Company [p. 365].

The problems in economic history, other than those strictly connected with joint-stock, on which Dr. Scott throws fresh light, or in relation to which his opinion merits careful consideration, are almost innumerable. There is the account of Elizabeth's maximum interest law, which financial difficulties forced her to break in *propria personâ*, just as Charles II. broke the law a century later. There is an interesting calculation by which we can determine the average cost of certain Elizabethan naval expeditions per ton or per man, and so can estimate the capital employed in cases where we have no precise financial statistics

[p. 77]. The monopolies agitations under Elizabeth, James, and Charles are fully discussed. Parliament comes rather badly out of these discussions; as do the "Free Traders" and ostensibly disinterested interlopers of the seventeenth century out of a long series of references. Almost invariably the agitator against monopoly in one sphere seeks monopoly for himself in another; possibly even in the sphere of his denunciation. In the matter of the Navigation Laws, Dr. Scott confirms and strengthens Dr. Cunningham's adverse verdict on their working so far as the seventeenth century is concerned. So one might go on. The book is inexhaustible in its wealth of fact. It is not, perhaps just what one would call a work of art; but though one might easily carp at this bit of construction or that turn of phrase, and though one might disagree with many *obiter dicta* in a work which takes so wide a sweep, it is amazingly difficult to dissent from the author's carefully weighed judgments on the essentials. He knows his companies as a trained and cautious investor knows the concerns in which his own capital lies. On the strength of his knowledge it seems easy to fix the proper times for buying Probishers or selling Battery Works. And he has wrung out that knowledge from his authorities with a magnificent scholar's patience.

J. H. CLAPHAM

The Agrarian Problem in the Sixteenth Century. By R. H. TAWNEY. With six maps in colour. (London: Longmans. 1912. Pp. xii + 464. 9s. net.)

• HERE we have a substantial, most useful, and altogether notable book; the work of a man alert, full of ideas, touched with emotion, yet restrained by the scientific conscience. It is dedicated to the president and secretary of the Workers' Educational Association, and in his Preface the author tells us he has learnt much from "the friendly smittings of weavers, potters, miners, and engineers" in the classes he has conducted in connection with that body during the last four years. Probably, if he had had nothing to do with "the W.E.A.," Mr. Tawney would have written a book very much like this. But I think we can discern now in his work an intensity of sympathy with "the under dog," and at the same time a sense of the limitations of class-outlook such as only intimate intercourse with workpeople could have given him. If in any degree this book can be called an outcome of the W.E.A., then for the scholar, at any rate, the W.E.A. is

beginning to be justified by its fruit. And this is a welcome conclusion. No one who has watched the W.E.A. closely can fail to have suspected one grave danger: the danger lest the lecturer on economic topics (naturally the most attractive) should be biassed unconsciously towards popular conclusions. I must confess I have felt the temptation myself when addressing working-class audiences: just as I have felt it, in a different direction, in addressing audiences of employers. One's points can be made so much more effectively, the glint of approval can be brought so much more readily into the eyes of one's auditors, if one lets oneself go and omits qualifications! It is reassuring to be presented with a book like this, which has come out of a W.E.A. atmosphere, tingling with feeling, it is true, and yet on the whole so balanced and fair-minded.

In approaching the subject Mr. Tawney has enjoyed advantages not at our disposal, who came to it more than twenty years ago. To build on we had then little more than Rogers and Nasse, together with the mediæval Extents and the like in the Rolls and Camden series, on which Seeböhm had recently thrown so powerful a light, a few passages of More and Latimer, and the writings of Coke. But since then Vinogradoff has made clear the legal disabilities of mediæval villenage; Maitland, following Meitzen, has brought out the diversity of local conditions; Page has brought exactitude into our knowledge of Commutation; Leadam has published and Gay has worked over the Enclosure returns; and, most effective perhaps of all, Savine has revealed the proceedings of the courts in the matter of copyhold and customary tenure. And, by the way, our author does not, perhaps, use quite the right word when he speaks of a writer of 1892 as "overlooking" these law cases, as if he might have been expected to know about them. He would reply, as Dr. Johnson did when he was asked how he came to make a mistake in his Dictionary: "Ignorance, sir; pure ignorance!" But then everybody else was equally ignorant in 1892. Mr. Leadam, it is true, called attention in that very year to the sixteenth-century Common Law cases; but his interpretation of them was open to grave objection, and has, in fact, been subsequently disposed of by Mr. Savine. It was the articles of the latter scholar in 1902 and 1904 which first put the matter in the right perspective by bringing out the significance of the earlier Chancery proceedings; and these were only made available to him by the then recent publication of the Calendar. No sensible man who kept his eyes open could write just in the same way after 1904 as was natural enough before.

Whatever his advantages, Mr. Tawney has made good use of them. He has immersed himself in the literature of the subject; he has utilised the fresh material printed in the Victoria County histories; he has himself collected a large number of transcripts from the Record Office, and has subjected them to a painstaking statistical analysis. The result is a work which, for the first time, covers the whole field. It is all run into an argumentative mould, so that no one can go to sleep over it; it is enlivened by forcibly-expressed generalisations, and by patches of rhetoric warmly purple; but at the end one has the feeling that the object has been attained: we feel that we now really know the agricultural life of the sixteenth century in its fulness and complexity.

To go through all the main topics of Mr. Tawney's book, desirable as it would be, is more than can be undertaken on the present occasion. I must content myself with mentioning what seem to me his chief personal contributions to the story. The first is his account of the way in which, in the Midlands and the South, the old symmetry of the yardlands had already, long before the Enclosures, been broken in upon by exchanges and purchases among the customary tenants. Another is the evidence he adduces of the grant both of pieces of the waste and, still more significant, of pieces of the *demesne* to customary tenants: facts which have no little bearing on the legal character and economic effect of the subsequent enclosures. A third is the proof of the conservatism of Northumberland, and its explanation in the military importance of the tenantry; to which, as Mr. Tawney acutely points out, the military motives for preserving the peasantry which actuated the Tudor Government are closely analogous, on a larger scale. And coming to the results of the enclosures, a point novel, I think, to modern discussion is made by Mr. Tawney when he calls attention to the crowding of workless cotters into the remaining "open fielden towns." Especially interesting, too, is Mr. Tawney's treatment of the question of the effect of governmental intervention by means of legislation, commissions, and such prerogative tribunals as the Star Chamber and the Court of Requests. With his conclusion that this intervention "mitigated the hardships of the movement to the rural classes," and "imposed a brake which somewhat eased the shock," he gives us good reason for acquiescing: I should be inclined myself to venture further, and to say that while governmental intervention did not prevent a good deal of enclosure from taking place, there would have been very much more enclosure had there been no intervention. I am glad to see, also, that Mr. Tawney recognises some merit in the

Stuart "ideal of government by prerogative." Perhaps in time he may think even more kindly than he does at present of the Stuart Council. His present opinions are on the side of the seventeenth-century squirearchy politically and against them socially. Not infrequently, I have noticed, the Whig "infection doth remain yea, in them that are," like Mr. Tawney (economically), "regenerated."

I have noted down a number of *dubitanda* which need not be dealt with here at any length, but which the author may care to consider for his second edition. P. 7, n. 2: "Hales was quite conversant with the effect on general prices of an increase in the supply of money." Did Hales get beyond the effect of *debasement*? Was not the idea of the result of simple *increase* introduced into his treatise in 1581 by W. S.? (See ed. Lamond, pp. xxxiii, 185, 187.) P. 126: is it quite certain that the rules as to succession in High Furness were really the "work of "the whole village"—"the prudent men of High Furness"? "It is now ordered" sounds remarkably like a royal ordinance or regulation, especially when we notice the motive recited at the head of the document. P. 166: surely the explanation suggested for what is justly called "the strange statement of Hales"—viz., that the chief destruction of *towns* (i.e., villages) was "before the reign of Henry VII.—that this "may well have been a curt summary of the impression produced by a century of gradual consolidation and piecemeal enclosures carried out by the smaller cultivators," is, on the face of it, very improbable. P. 258: does the narrative here quoted refer to any but freeholders? the text says nothing about "other tenants." P. 309: "the flooding of Europe with American silver" has, hitherto, been commonly supposed not to have affected prices in England till some time after the discovery of the Potosi mines in 1546—according to Adam Smith not till about 1570. P. 381: for further corroboration of "the view that the religious houses had been easier landlords than the new lay owners," reference may be made to the author's own citation from Becon, p. 7, n. 1; to the fears expressed by Starkey (*England in the Reign of Henry VIII.*, p. lviii, *seq.*); to the last clause but one of the great act of secularisation, 1536; and to the complaint by Hales in 1548 as to its non-obsequance (*Common Weal*, p. xlix-l). A convenient catena of passages from contemporary writers will be found in Professor Cheyney's book. That the religious houses were "easier" is not to be attributed to their religious character, but to the conservatism of all corporations. Mr. Tawney's comparison with "fellows of Oxford colleges"

(p. 383) tells in the same direction ; for colleges were notoriously conservative, even in the nineteenth century, in the management of their estates.

W. J. ASHLEY

Waterways versus Railways. By HAROLD G. MOULTON, Instructor in Political Economy in the University of Chicago. (Boston and New York : Houghton Mifflin Company. 1912. Pp. 468. Price \$2.)

The Lakes-to-the-Gulf Deep Waterway. By WILLIAM A. SHELTON, Graduate student in Political Economy in the University of Chicago. (The University of Chicago Press, Chicago, Illinois. 1912. Pp. 130.)

MR. MOULTON'S book is very interesting throughout. But the most interesting parts of it are the preface and the conclusion. In the preface he describes the attitude of his mind as it was when he began his study, and the change of opinion that was forced upon him as he became more and more familiar with the facts. In his last chapter he deals with what may be called the psychology of the waterway movement, and explains the causes which in his view account for the fact that the arguments which have convinced him have so far not convinced the man in the street.

Here is what the preface says :—

"When this investigation was undertaken, the author shared in the common belief that traffic of certain kinds can be carried at substantially less cost by water than by rail. . . . A reading of the literature of the subject, however, soon made it evident that no adequate analysis of the cost of transportation by water had ever been made ; that it was merely tacitly assumed that water transportation is cheaper than that by rail ; and that the rate comparisons sometimes presented in support of this assumption were virtually meaningless. This discovery led to a shifting of emphasis to the cost aspect of the problem, the question of traffic assuming a secondary place. . . . When the author went to Europe he shared in the general belief that water transportation on the Continent was of undoubted economic advantage. . . . But to the surprise of the author it soon became apparent that in Europe, as in the United States, little consideration had ever been given to the *inclusive* cost of transport by water as compared with that by rail, and that the rate comparisons usually made proved nothing whatsoever."

Mr. Moulton's very careful and acute investigations of canals both *in esse* and *in posse* in the United States, and in all the principal countries of Europe, which led him to the change of view he has so frankly recorded in the preface, occupy the bulk of the book before us. They show in elaborately particularised and closely localised detail what not a few authorities on the subject, such as Colson in France, and Ulrich in Germany, have long ago asserted as a general proposition—that, in Mr. Moulton's own words, "there can no longer be any question that, so far at least as canals are concerned, the cost of transportation, all factors included, is almost universally much greater by water than by rail. . . . All attempts to make canals an integral part of a national transportation system, whether for the carriage of high class or low grade freight it matters not, is an attempt to turn backwards the clock of time. In the case of rivers, however, the situation may at times be somewhat different; . . . but it is only in rare instances that river transportation can be made as economical as transportation by rail."

Mr. Moulton's case, which in the opinion of the present writer is absolutely conclusive, rests, of course, in the main on the fact that the ordinary estimates of transportation costs by rail and by canal include, in the case of the railway, all costs; in the case of the canal, only such costs (in France about one-half of the whole) as are borne by the trader himself. It is difficult to understand how so one-sided a basis of comparison can ever have been suffered to pass unchallenged. But apparently it has been so common as to be taken for granted. One striking instance nearer home than the United States may perhaps be given. Our own recent Royal Commission on Canals sat for several years, and published eleven volumes, and a Report containing 974 paragraphs. Not one of the 974 paragraphs discusses the question, which to an ordinary economist would surely have seemed fundamental, whether there are any, and, if so, what circumstances in which canals are a more economic means of transport than railways. Nor does the Report so much as allude to the very pertinent fact disclosed in the Report of their Sub-Commissioner, Mr. Lindley, that, whereas the total cost per ton kilometre on the railways of France for all traffic, high class and low class, small and large consignments, is 0·55d., the total cost on the waterways, for low-class bulk traffic only, is 0·57d. As, however, it also appears that only one-half of the canal cost is paid by the trader, while the other half is thrown on the shoulders of the taxpayer, it is easy to understand how the trader

comes to assert that canal carriage is cheaper. Why, however, a Royal Commission should take the truth of his statement for granted is not so clear.

The bulk of Mr. Moulton's book consists, as has been said, of a description and appreciation of the existing waterways and the schemes for new waterways in the principal countries in the world. Each individual waterway, however, has, generally speaking, no interest except for those whom it particularly concerns, and the cumulative effect of the argument is only reached as Mr. Moulton shows to us one waterway after another, points to the traffic it carries, and the *total* cost of carriage, and proves that in almost every case 'the Rhine is the one conspicuous exception' the final balance is, not a profit, but a deficit. There is, therefore, nothing to be gained by an attempt to make a summary or a review. Two interesting points may, however, be noted in reference to Germany.

The first is that the official Prussian policy forces a very large and rapidly growing traffic in coal and iron in the Ruhr district on to the waterways; and that new waterways are being constructed to deal with this growing traffic, which, it is alleged, the railways are unable to cope with. Mr. Moulton points out, not only that railways both in England and America have no difficulty in dealing with much heavier traffic, but that practically the whole of the Ruhr traffic either originates or terminates on the railways of the district. Now, says he—and it is difficult to see an answer to the objection—if railways can deal with the traffic at the focus of congestion, *a fortiori* they can deal with it nearer the circumference, more especially as the present policy keeps both the loading and the unloading within the congested area, whereas, if the railways were allowed to carry the traffic throughout, either the loading or the unloading would normally take place outside it.

The second point is this. Mr. Moulton asks if it is possible that "the German waterway officials and the German people in general can themselves be unaware of the economic losses involved in waterway expenditure. Is there something back of the scenes, some political interest, or some dominating force, which virtually compels the Government to continue the policy of subsidising the waterways, or are the German people simply in the dark as to the economic waste involved?"

He notes that German railway officials regretted at the International Railway Congress at Berne in 1910 their inability to take part in the discussion of the question whether

railways should be sufficiently extended to meet the increasing demands of commerce; that high officers of the Prussian railways have declared the official statement of the Prussian Government that waterway extension was required to cope with traffic for which the railways must be inadequate to have been made without their being consulted; and that twenty high dignitaries who voted in 1899 in the Prussian House of Lords against the ambitious Rhine-Weser Canal scheme were summarily removed from their posts. And he comes to the conclusion, which is, be it said, undoubtedly correct, that waterway schemes are being pushed forward in Prussia, not because they are economically sound, but because the German Emperor believes in them. If we may vary a famous saying of another Emperor five centuries earlier, *Ego sum imperator Germanicus et supra economiam.*

To Englishmen, the chapter on the Manchester Ship Canal has a more direct interest, especially as most people believe that the results have justified its construction. Mr. Moulton shows that the Canal was estimated to cost £8,000,000. It has cost more than double. It was estimated to pay a 5 per cent. dividend upon the whole share capital of £8,000,000 in the second year of operation. In fact, now, sixteen years after its opening, it has never even met the interest on its debt. It was estimated to earn in the second year of operation £479,000 net. In fact, it earned £137,000 gross. Further, as to its indirect effects: Manchester shows a growth of population during the decade 1891-1901 less than that of Liverpool and Birmingham, and not half that of Leeds; the reduction in railway rates between Liverpool and Manchester is "slight at best." One might perhaps add that, had the £17,000,000 been spent, not on making a canal, but as a free gift to the Lancashire railway companies, there can be no doubt that they would have agreed in return to carry cotton for nothing, and to give to manufacturers and operatives alike perpetual free passes between Manchester and the pleasure towns of the Lancashire coast.

One criticism should, I think, be made of Mr. Moulton's otherwise excellent work. In referring to railways, he does not seem to be on as sure ground as in dealing with canals. More than once he appears to compare some particular canal in reference to construction cost, actual traffic, or traffic capacity, not with its real analogue, some specific main line, but with some railway system as a whole.

A word as to Mr. Moulton's psychology of waterway supporters. He believes that the popular mind still retains a

recollection of the way canals opened up new highways of commerce, and still hopes that they will once again come to their own, and with their individualistic methods, deliver us from the despotism of those great capitalistic monopolies the railways. This substratum of popular sentiment two classes combine for their own ends to convert into a definite conviction. The first class consists of the politicians, sometimes merely because they desire to head a popular movement, but often because they have a personal "axe to grind." The waterways agitation in Illinois, he says, "has disgraced the very name of the State. Unless the whole question of waterways is placed in the hands of impartial investigating bodies, . . . the country will waste millions in projects, the general result of which will be to enlarge the patronage, or further line the pockets of our practical politicians." The second class consists naturally of the traders actually situated on waterways who hope to gain a differential advantage over less conveniently situated rivals. When the State of New York voted by plebiscite on the enlargement of the Erie Canal in 1903, the non-canal Counties voted against it by large majorities, for instance, 12 to 1, and 10 to 1; but the non-canal Counties were overwhelmed by the vote of the two terminal cities, Buffalo and New York.¹

Of Mr. Shelton's monograph, which was, he says, prepared as a Master's thesis at the University of Chicago, and is a study of the traffic problem only, little need be said. It is a most careful piece of work, and should be of great value locally as a contribution to the study of the one definite project with which it deals, a canal to connect Chicago with the Mississippi. Here are figures more eloquent than any words. In forty years the total river tonnage dealt with at St. Louis, the junction of the Mississippi and the Missouri, has fallen from 1,600,000 tons to 191,000 tons. In the same period the rail tonnage has grown from 3,258,000 tons to 51,700,000. And the Mississippi

¹ The present writer happened to be in New York when this vote was taken, and was assured that the officials of the New York Central Railroad had all voted for it, the reason being that they were satisfied that, while the Canal during construction could bring them a good deal of traffic, the Canal when constructed would never subtract any.

Figures as to the existing Erie Canal have been recently published by the Bureau of Railway Economics (Bulletin No. 21).—In 1909 the actual cost of transportation paid by the trader was 2 mills per ton mile. But each ton carried one mile cost the taxpayer in addition 5.06 mills for capital, and 1.55 mills for maintenance. The total cost per ton mile was therefore 8.61 mills. The total charge made by the competing railway companies per ton-mile ranged between 6.1 mills and 7.4 mills.

has a minimum 8 ft. channel all the way from St. Louis to New Orleans; while both that river and the Missouri are navigable for many hundreds of miles above their junction. If such has been the fate of the Father of Waters in competition with a modern railroad, it is really hardly worth discussing the prospect of success of some puny artificial waterway.

W. M. ACWORTH

Die Wirtschaftlichen Grundlagen des Modernen Zeitungswesens.

By DR. MAX GARR. (Vienna and Leipzig : Franz Deuticke. 1912. Pp. 79. 3 mk.)

Die Deutschen Bühnen und ihre Angehörigen. By DR. CHARLOTTE ENGEL REIMERS. (Leipzig : Duncker & Humblot. 1911. Pp. xix + 772. 15 mk.)

THE industrial activities of Germany have become self-conscious, and economic inquiries into every sort of enterprise and almost every kind of occupation pour from the German Press. The modern newspaper and the theatrical profession are the subject of two recent investigations. These works differ widely in scope and purpose, but both concern activities and achievements which Germany holds in high esteem. For all that concerns letters the German has a veneration unmatched in any country; for the stage he cherishes an enthusiasm which it is almost impossible for us to understand. The Press is but a poor relation of literature, yet the journalist of Vienna or Berlin is a person of consequence, whose influence is not limited to the pulling of strings behind the scenes. The stage may everywhere be invested with a certain glamour, it no doubt appeals to something in the youth of every nation. But in German-speaking countries it has its roots deep down in the national life, it meets some need which is part of the national character. The author of the *Deutschen Bühnen* claims, not without justification, that the Germans are the true *Theatervolk*. The Latin races only ask to be amused; the Puritan susceptibilities of the British remain apprehensive, even where they have ceased to be offended. But for the German the call of the theatre is irresistible, and never fails to meet with an eager, enthusiastic response. The enquiry undertaken by Dr. Reimers throws a searching light into many dark corners, and spares neither criticism nor suggestion. Its main object is to furnish that theoretic basis which the prudent German never omits as a preliminary to proposed legislation.

The author of the *Grundlagen des Modernen Zeitungswesens*

wesens has no special gospel and no immediate practical end to serve. The journalist, like other men, must live, but this volume is not concerned with his general claim or his special difficulties. Nor are the ideal mission or the true function of newspapers brought into the discussion. Dr. Garr aims only at providing a foundation of economic facts and figures to serve for the guidance of, and perhaps for a check upon, such speculation. The facts are not likely to be palatable. The modern newspaper, with its huge machinery for production and distribution, its dependence on costly telegraphic and other agencies, is essentially a commercial enterprise. Moreover, the major portion of the cost of production is borne by advertisements. This is a position from which nothing can save us, and any attempt to make the Press independent of commercial elements is foredoomed to failure.

The author is considerably hampered in his work by the unwillingness of owners and editors to disclose any facts touching on their finances. Even the balance sheets of Joint Stock Companies contrive to wrap up their essential features in a mist of vagueness and obscurity. Two Vienna papers did, indeed, furnish figures on the understanding that their incognito would be respected, but only the social-democratic *Vorwärts* appeared to have nothing to conceal. A trustworthy authority fixes the capital required to start a newspaper in a German town of 150,000 inhabitants at £10,000. The enterprise may eventually yield a return of 20 to 25 per cent., with the attendant risk of complete financial disaster at any moment. Even these figures, the writer points out, are small compared with the £300,000 sunk in the *Tribune*, or the £600,000 required to bring a New York daily into existence. The fame of the sum which Mr. Harmsworth, in his own picturesque language, "dropped in two days over the *Daily Mirror*" has evidently not penetrated to Germany.

The advertisements stand to the editorial matter of a Berlin newspaper in the proportion of, roughly, 34 : 66 per cent. In French papers the relation is 27 : 73, but in France the editorial text is very accessible—to put it politely—to the advertiser. This dependence on advertisement, *i.e.*, the fact that the selling price of the paper does not meet the cost of production, leads the writer to the paradoxical conclusion that after a certain point has been reached any increase in the circulation can only be a disadvantage, and he quotes a *bon-mot* of the famous editor, August Zang : "Every new subscriber is an enemy." The ideal circulation would seem to be the minimum that will satisfy the advertisers,—a

position which involves an erroneous assumption of rigidity in the world of advertisement.

It is true that the German newspaper, with its endless supplements, is a very bulky article, costly to produce. A leading Vienna daily consists of 60 pages on weekdays, 128 pages on Sundays, and 216 on holidays. 70,000 copies make up the daily edition, but on Sundays and holidays the ampler leisure of the population creates a demand for 120,000 copies. The profit on a weekday issue amounts to 6,040 kronen, on a Sunday edition to 9,269, but on holidays it falls to 1,652. It is clear that the size and circulation of the Sunday issue represent the limit of profitable expansion. After this point has been reached profits sink rapidly, and if all circumstances were taken into consideration, might vanish altogether. The writer, however, overlooks the fact that the holiday number—it might almost be called the holiday volume—adds to the popularity of the paper, and takes a prominent part in the unceasing warfare which every paper must wage with its competitors.

On the subject of advertisement agents the writer is frankly pessimistic. The battle is to the strong—and unscrupulous. The agent makes enormous profits, but his methods do not bear investigation. The purely commercial character of the Press, the writer concludes, is injurious to the public welfare. He deplores the frequency with which papers change hands, and the consequent facility with which contributors must needs change views. The public in its infrequent philosophic moments complains, but does not appear to realise its own responsibilities. For the newspaper only exists to give the public what it wants, and the only hope for the future lies in the progressive political and educational advancement of the masses. A State Press would, in the opinion of Dr. Garr, be a monstrosity, and even a State-subsidised Press would not be economically feasible. This is a point on which fuller discussion would have been of great interest, and it is to be regretted that the writer states the problem only to dismiss it.

For the author of the *Deutschen Bühnen und ihre Angehörigen* there is no such open question. The stage is for her, as it was for Joseph II. of Austria, a powerful instrument for the education of the public taste and the improvement of public morals. It follows that the cost cannot be computed by purely business standards. The theatre cannot fulfil its mission without subsidy from the State or town; therefore this subsidy must be forthcoming. The whole volume is a stirring, if somewhat lengthy, human document. Enquiries were sent to 237 theatres in 182 towns, and each paper contained 140 general and 34 "personal"

questions. Altogether 2,000 replies were received, and the writer claims that, with but a few exceptions, all the questions were answered with evident care, sometimes with passionate eagerness. As the theatrical calling engages some 22,000 persons, this material cannot claim to be exhaustive. But inasmuch as the replies emanate from every theatre of any consequence, and embrace every known grade of employee, every character to be found in opera, tragedy, comedy or farce, they may fairly be regarded as representative of the profession.

And the tale to be gathered in one of tragedy unsurpassed by any record of sweated industry we have yet seen. It would appear that the German actor is the hardest worked, the most poorly paid, and the most unjustly treated of all mankind. He is incredibly overtasked. The succession of rehearsal and performance that make up his working day would tax the strongest constitution to breaking point, and yet these are varied by additional performances in neighbouring places, which involve night journeys and even later hours. The number of plays which a novice is expected to master is calculated to ruin the most willing memory, and mar his chances at the outset. The pay compares unfavourably with the earnings of manual labour. The hygienic conditions of all but half-a-dozen of the newest theatres are unspeakable. And finally the actor is at the mercy of a contract which binds him, body and soul, to his employer. Unfavourable conditions of employment constitute a hardship in any case, but everything conspires to make them a special burden to the actor. For he is always, in temperament at any rate, an artist, with unbounded enthusiasm for his calling, with a pathetic eagerness to work, to succeed, to excel. The nature of his calling imposes a special tax on every faculty, for the actor can never afford to relax. Nothing is ever really achieved, for no triumph survives the night, and success has to be captured afresh in the morning. In these circumstances a certain measure of comfort, leisure, and freedom from immediate care would seem essential, but the actor's life is nothing but a record of anxiety, privation, and toil.

The reader who has grasped the fact that out of 2,000 cases investigated only 404 earn over £100 a year, while over 800 incomes range from £15 to £50, proceeds to read, almost with incredulity, of the expenses involved in the earning of this pittance. The actor finds his own clothes,—a serious item in the case of women, who dare not appear in the same frock for two different parts, and may be called on for a fresh part every two or three

days throughout the season. Men are provided with historical costumes when required, but actresses have to provide even these, and frequently devote to dressmaking the hours that are sadly needed for rest and sleep. Travelling is another serious item, for all theatres close for the summer, and the members of the company are driven to seek summer engagements in watering places, perhaps halfway across the face of the continent. And lastly, there is the inevitable middleman, the agent who takes a steady 5 per cent. of the actor's salary throughout the whole length of the engagement he has helped to secure.

But it is, perhaps, the insecurity of tenure which constitutes the worst grievance in the actor's life. The Director of a theatre reserves to himself, by the terms of the contract, a series of exclusive rights. He may terminate the engagement, where the contract is for five years, at the end of the first or second year, where the contract is for one season only, at the end of the first month. By this time all companies are made up, and the victim of this one-sided form of contract has no chance of another engagement for at least a year, and no option but to starve. Further, the Director has the right to keep on his company for a few extra weeks at the end of the season, if he chooses, so that no member dares to make a new engagement for the weeks succeeding the term of his contract. The tyranny of the one-sided contract, according to which the employer is never bound, and the employee never free, is illustrated by numerous instances.

But the writer points out, in all fairness, that the Director is in some respects almost as much the victim of circumstances as his employees. The competition among theatres for the public favour is as keen as that among actors, and the Director must at all costs attract to his company and keep what "stars" he can. The stars make their own terms, and the salaries which they command must be saved elsewhere. Since the demand for luxury in the appointments of the theatre and for perfection in technical detail increases apace, while the price of seats cannot be raised, the only quarter where savings can be effected is the salary of the smaller folk. There remains the subsidy, which in the majority of town theatres lies in the hands of the Theatre Committee of the municipal authority. The Director is as much at the mercy of this Committee as the individual actor is at the mercy of his employer. The Committee interfere in details of management, may demand the production of certain plays, veto the production of others, may even insist on the dismissal of a particular actor. Worse than all this, they may at any moment terminate the

contract with their lessee, on the ground "that the interest of the theatre" demands such a change. For the Director, the sudden termination of the contract probably means the forced sale at an enormous sacrifice of his entire equipment—in short, complete ruin.

A nation which has only recently entrusted its municipal authorities with so comparatively uncontroversial a business as education, will listen with sympathy to the plea that the interference of the municipality in any but the financial side of an artistic enterprise must be intolerable. A telling instance is quoted of a member of the Committee who insisted on the production in his own provincial city, of a play which had specially appealed to him in the tender mood induced by an exquisite supper in Berlin. The play was not suited to the temper of the provincial audience; it was not within the capacities of the caste. Yet the Director was obliged to acquiesce, against his better judgment, and earn a fiasco, which did not endear him to his own Committee.

A more equitable law of the theatre, for in the matter of contract, of general conditions and of liability to accident the theatrical profession lies outside the common law, would seem to be an immediate and crying need. Such a law has been drafted by the Association of German actors, at whose instance the whole enquiry was undertaken, and Dr. Reimers criticises the demands of the Association with impartiality. Some of them she regards as exaggerated and likely to defeat their own ends. On the other hand, there is nothing exaggerated in the claim that Sunday rehearsals, when there are already two performances on that day, and any night rehearsals, which are held after the evening performance, should be abolished. The regulation of Sunday labour and of night work for women has been proved feasible in other occupations—it should not be impossible here. The exclusive rights given by theatrical contracts to the employer constitute as flagrant an injustice as ever found its way into a Statute book. They should be abolished. The actor is peculiarly liable to accident; he should not be excluded from the ordinary law of compensation.

The only bright spot in the present situation is the inclusion of the actor in the new scheme of compulsory insurance. The law which ordains that every employee who earns no more than £100 a year shall come within the old-age pension scheme, while everyone who earns less than £125 shall be liable for sickness insurance, has removed the two worst rocks in the actor's path.

For the rest, nothing can save theatres from the consequence of cut-throat competition with each other, or actors from the

disasters of the mad rush that overcrowds the profession. Concessions for the opening of new theatres are granted with incredible recklessness, and obstacles only seem to attract capitalists to madder ventures. Stage-stricken young persons of both sexes are encouraged by unscrupulous teachers, often indeed actors who seek to add to their insufficient earnings by teaching their craft to fresh victims.

To the student of German economics nothing is more significant than the discouragement apparent in the writings of the majority of those who investigate the existing economic structure of society. Some, like the author of the *Grundlagen des Modernen Zeitungswesens*, hope, with the courage of despair, for an apparently spontaneous improvement in the tastes and habits of mankind. Dr. Reimers pins her faith to definite reforms, which shall bring the theatrical proletariat into line with the other classes who have already felt the benefits of social reform. But the panacea for our ills, the remedy which shall deal with the monster of competition, is yet to seek. The most varied economic investigations converge upon a single point, and everywhere, below the surface, we can detect the stirrings of the same discontent. The newspapers, the theatres, and this trade and that industry,—all would appear to make an increasingly precarious living, none are free from the reproach of exploitation. There is hardly an author who does not foreshadow a condemnation of the existing order, a question whether individualism, even fettered and restricted as it is, has not seen its day.

H. REINHERZ

Les Bases économiques de la Justice internationale. By
ACHILLE LORIA. Publications de l'Institut-Nobel norvégien.
(London: Williams and Norgate. 1912.)

THE title of Professor Loria's work might be taken as indicating a treatise on international law in its relation to international trade. But its scope is much wider, and might perhaps be best indicated by some such English translation of the title as this: "The Operation of Economic Factors in the Evolution of International Society"—since Professor Loria uses "International Justice" in the larger general sense, and not in the more special juridical one. The book is thus of interest, not merely to lawyers and economists, but equally to the much larger public interested in the development of a science, or a philosophy, of international relationship. The needs of European

society will surely develop such science, drawing freely upon such existing divisions of study as law, politics, economics; just as certain other social needs have developed such new divisions of knowledge as genetics, which have been built up by drawing freely upon and combining pre-existing divisions.

In the library of such science—which has hardly as yet progressed as far as possessing an exact terminology—this book will take high rank, mainly by reason of its orderly classification of a wide range of facts showing the part that trade and industry have played in the development, not merely of political and constitutional forms, but of social and moral conceptions, such as religious toleration. The whole book is, indeed, a very clear demonstration of the truth that it is impossible to separate the economic from the moral and emotional developments of mankind—a demonstration which, in view of certain contemptuous criticisms commonly levelled at the more recent efforts to show a sound economic basis for international co-operation, most certainly needs to be made.

But Professor Loria will be read more for his facts than for the conclusions which his book enables us to draw. In the statement of his case he has adopted the following method: He enumerates in one chapter those factors which favour the establishment of law and religious toleration—organised society, in fact—and in the next those which operate to destroy them; or, taking the same factor, shows in one chapter how it operates to the development, and in the next how it operates to the destruction of those things. It will readily be understood how such a method is well adapted to show clearly the isolated action of each particular factor, but ill adapted to show the net result of the totality of the factors. And the matter is in no way mended when we get a third chapter entitled "*Les Rapports économiques rétablissent partiellement l'organisation juridique internationale*," and a fourth entitled "*Les Rapports économiques rétablissent intégralement le Droit internationale*"!

The difficulty, moreover, of this method is accentuated by the arrangement of the book. There is no table of contents, no analysis of chapters, no index, no differences of type to distinguish the author's statements from passages which he cites and criticises, and the footnotes, instead of being at the bottom of the respective pages, are lumped together at the end of the book. These are trifles, perhaps, but they are trifles which have made many books, which might be lucid and coherent, positively maddening to read.

Moreover, such a method makes Professor Loria's book a particularly difficult one to criticise. Thus, in the chapter headed "Les rapports économiques détruisent l'organisation juridique internationale," the thesis of which seems to be (p. 30) that war "éclate toujours comme une réaction contre la baisse du revenu," occurs the following passage :—

"La guerre de Cuba n'est qu'un produit du déclin du revenu des fabricants de sucre américains. La guerre du Transvaal est l'œuvre des financiers et des spéculateurs de mines d'or, qui espèrent pouvoir tirer de grands avantages d'une excursion militaire dans l'Afrique australe. Mais ces velléités des financiers britanniques sont à leur tour excitées par la baisse inquiétante du revenu anglais. La guerre russo-japonaise est un produit du déclin de l'assiette économique de la Russie et par conséquent de la baisse de son revenu, qui la pousse à la relever grâce à des expansions et des annexions violentes en Asie tandis que de son côté le revenu japonais à l'étroit dans les limites nationales, veut à tout prix s'étendre par l'exportation et par la colonisation de la Corée voisine et de la Mandchourie. La guerre actuelle de la France contre le Maroc a uniquement pour but de contraindre cette région à faire des frais, qu'elle ne pourra supporter sans recourir à un emprunt qui engraissera les banquiers français. Que dirai-je de plus? Aujourd'hui le germe d'une guerre possible est tout entier dans la rivalité économique de l'Allemagne et de l'Angleterre. L'Angleterre n'arbore le nouvel impérialisme de Chamberlain que le jour où elle sent menacée par l'Allemagne sa suprématie dans les industries textiles et métallurgiques; d'autre part la politique mondiale de Guillaume II. montre que l'unique but de l'action germanique est l'abaissement de la puissance commerciale anglaise. Les politiciens des deux pays, qui représentent la classe des commerçants, et occupent aujourd'hui partout le pouvoir, sont convaincus que leur patrie est destinée à une régression inévitable si elle ne triomphe pas de son rivale. Les unionistes anglais, comme les libéraux ou les radicaux partisans de l'expansion qui soutiennent Asquith, sont précisément une émanation des commerçants : ils rêvent de nouveaux marchés et de nouveaux clients. De même les nationalistes libéraux et les libéraux démocrates allemands, avec la *National Zeitung* à leur tête, ne sont que les délégués politiques des industriels de la Prusse Rhénane et de la Westphalie."

If this is intended as a partial statement to be read in conjunction with a parallel partial statement of the opposite case in the next or preceding chapter, criticism is, of course, disarmed.

But if it is intended as a complete and impartial summary of the whole of the factors or the determining factors of the conflicts enumerated, it is quite obviously imperfect. To represent the Spanish-American War or the Boer War as the outcome merely of financial intrigue is to ignore certain outstanding facts which cannot be ignored if we are to have any just notion of the processes of war-making. In fact, one can say that, in the case of the Anglo-German conflict for instance, merchants and financiers as a whole fully realise its futility, and are throwing their influence against its precipitation, while huge sections of the public, who are unaware of possessing any interest in the conflict at all, are throwing the influence of their excitability and temper on the side of conflict. Your honest roaring jingo, who is so great and dangerous a factor in the precipitation of these conflicts, has, for the most part, no earthly private interest to serve by the war which his general influence may at times render inevitable. His action is due to genuine hatred or fears based upon false conceptions of the relationship of foreign nations to his own. He may think, like Lord Roberts, that foreign trade is a matter, not of having things to sell, but of having power to exercise against someone else; or he may conceive of foreign trade as a fixed quantity which we "take" from one another as the balance of power drifts from one to the other; or of all nations as struggling economic units, rival business firms, the gain of one being the loss of the other—one could go on reciting indefinitely the sort of picture which is evidently in the jingo mind, and which necessarily and logically sets up the hostility, hatred and funk which play so large a rôle in bringing about international conflicts. These things may have their origin partly in economic conceptions, but are psychologically distinct. To represent the conflicts enumerated by Professor Loria as the direct outcome of financial intrigues reminds one of the Chinese Socialist who lays down certain doctrines concerning the relation of cholera to the Capitalistic system. The story runs that a Chinese Coffin Trust, in the interest of its dividends, had bribed a provincial governor to suspend sanitary arrangements during an outbreak of cholera—"Plain proof," argued the Socialist in question, "that cholera is a Capitalistic interest, and will never be successfully dealt with until we have abolished the Capitalistic state."

The most powerful economic forces of our time are those which operate unseen and unnoticed by those subject to them, and which escape conscious political control. It is not the result of any conscious policy of government which has made German

industry so largely dependent, directly and indirectly, upon foreign capital; or which has caused France to furnish so large a part of the financial sinews of war for German industrial development. The great economic forces of the world are the resultant of isolated individual acts, no one of which is taken with the object of bringing about the result which in conjunction with others of a like kind it finally achieves. All of which means, not that the economic causes of war are not the chief causes—they almost certainly are—but that those causes often act not directly or consciously at all, but indirectly, and irrespective of the conscious volition of Governments.

There are, indeed, two main facts in the economic development of the world which have the most direct bearing upon the problem of international conflict, and with neither of which Professor Loria deals, unless it be by casual references, in this book. The first of these facts is the complex division of labour, which, despite tariffs and protectionist devices, has made the economic unit something quite distinct from the political unit. Since the frontiers no longer coincide, political power has become largely irrelevant to economic ends. The second fact is that the linking of telegraphic communication to our credit system has made of the industrial world an economic organism endowed with sensory nerves, by means of which any appreciable damage to one part is instantaneously felt by the other parts, and which sets up therefore a co-ordination of policy which must finally end in the cessation of conflicts between the various parts of the same organism. These are the outstanding facts of modern industrial and financial development, and the ones perhaps which bear most directly upon international policy. It is to be hoped that an author so well equipped to show their operation as Professor Loria will turn his attention to them in the future. Meanwhile we may rejoice that the general conclusion which Professor Loria himself draws seems to be indicated 'in the following passage:—

"Si le développement suivi jusqu'ici par les rapports économiques et par les rapports juridiques internationaux, qui en sont dérivés, permet quelques prévisions sur leur développement à venir, on peut facilement présager qu'avec le progrès ultérieur des rapports économiques, les guerres deviendront de plus en plus rares et qu'elles finiront par disparaître complètement."

Ainsi soit il!

NORMAN ANGELO.

Theorie der wirtschaftlichen Entwicklung. By Dr. J. Schumpeter. Pp. viii + 548. (Leipzig: Duncker und Humblot, 1912.)

DR. SCHUMPETER'S book, although it covers a great part of the field usually covered by economic manuals, is not one itself; it is rather, as he himself puts it in his introduction, the development of one fundamental idea, which underlies most of his work. He does not set up this idea in opposition to the work of his predecessors; on the contrary, he considers it a further, necessary development, and takes much pains to fit it into the existing frame. This frame is given in the first chapter, which is both an introduction to his own work and an interesting and conscientious survey of Continental as well as of English and American economic literature. In it we see foreshadowed the outlines of his own work.

Economists, he holds, have hitherto dealt almost exclusively with problems of a static society; their teachings are explanations of its phenomena. The idea of a static society in no way excludes either the incidents of "economic friction," or development which merely preserves the equilibrium; thus, *e.g.* development in proportion to the growth of population does not destroy the static character of society; it is mere readjustment, not progress.

But there is according to Dr. Schumpeter such a thing as spontaneous, economic development, development due to new combinations in economic life, to constructive economic leadership. At the present time we are so accustomed to the phenomena of change that we are only too inclined to forget that anything else is possible; that there might be a state in which economic life would be one series of uniform cycles, rhythmically repeating themselves, one state of static equilibrium. That it is not so is due to the entrepreneur, the man of action, the originator of new systems, which if successful enter as component parts into the circulatory flow of economic life. His action and work cannot be explained by the hedonistic rules of the usual *homo economicus*; he forms a type by himself.

The essential feature of his action is the attempt to increase the efficiency of production (in the widest sense) through an improved use of the means at his disposal. If he succeeds, he obtains a surplus. Hoping to achieve this surplus, he is able to pay a premium to those who will give him the command of the required means. To give him this command is the task of "credit." The payment for this command is "interest." Interest can be

paid, because there will be the surplus out of which it can be paid. In a static society there would be no such surplus; in a state of perfect equilibrium the value of the product is the sum of the values of the means by which it is produced. Prof. v. Böhm-Bawerk sees in "time-preference" the factor which (besides the incidents of economic friction—always understood) causes the divergence of these values. Dr. Schumpeter asks: is the preference given to present as against future values the direct effect of independent psychological factors, or do we value present values higher, because we are able to retain them to a future date and still draw incomes from them? His answer is that in a static society there would be no reason to give this general preference to present values: the rule would be equality of both. In the existence of economic development Dr. Schumpeter sees the one great reason why preference is given to present values.

Dr. Schumpeter does not merely throw out his idea; he follows out its necessary consequences; he surveys from his new point of view our existing ideas of various economic phenomena. He devotes an interesting, though lengthy, chapter to the nature of economic crises, and shows that besides the crises which are due to disturbances originating outside the sphere of economic life, there is a category due to the very nature of economic development. Economic development works intermittently; innovations in different branches of economic activity follow one another in rapid succession. Each burst of this character necessitates a period of readjustment, of "statisation": this process gives the impression of a backwash, sometimes it may become an acute crisis. It is impossible in a short review to deal with the numerous ramifications of the author's work; still more, to endorse or criticise them. All we can say is that Dr. Schumpeter does not shun any amount of trouble to make his work complete; that he is very fair and very conscientious; that he grapples with all kinds of possible objections. Even too much so; he often answers possible questions, which if asked are better left unanswered. He is not satisfied with presenting to us his building, he presents us with all the scaffolding which he has used, and takes us over all the paths he has trodden. This, combined with frequent repetition, makes his book cumbrous. The reader, who could not understand him if half the explanations were omitted, will hardly wade through the work in its present condition. Still no one who takes a real and thorough interest in economics ought to pass it by.

L. B. NAYMIEB

Die gemischt privaten und öffentlichen Unternehmungen auf dem Gebiete der Elektrizitäts- und Gasversorgung und des Strassenbahnwesens. By DR. RICHARD PASSOW. (Jena : Gustav Fischer. 1912. Pp. vi+220. 6 marks.)

THIS book contains an interesting and detailed account of what is probably the most recent phase of municipal trading in Germany, viz., the holding of shares in, and the representation on the directorate of, electricity, gas, and tramway companies by local authorities. This movement during the last few years appears to have succeeded an earlier one in favour of municipalising public utility services. The new development is ascribed by the author partly to the recognition by local authorities of some of the difficulties associated with municipal management of trading undertakings, and partly to the technical and economic desirability of electricity, gas, and tramway undertakings conducting their operations over large areas, which generally embrace the districts of several local authorities. Although a large area of operations may be secured by one municipality trading outside its boundaries, or by the establishment of some form of joint board by the various authorities concerned, in practice it is not always possible to secure the necessary agreement amongst a number of local authorities whose interests may conflict. In some cases municipalities realising the need for extending their area of operations have actually leased their trading undertakings to private companies; a striking instance is that of Königsberg, which in 1910 so leased its electricity and tramway undertakings. More frequently municipalities have sold their works to companies, or have undertaken to buy gas or electricity in bulk from companies, in which they are themselves shareholders, e.g., Darmstadt has disposed of its electricity and tramway undertakings to such a company, which owns also the suburban lines; and Cologne has recently entered into an arrangement to buy temporarily some, and ultimately all, of its current from another similarly constituted company. In other cases a local authority has preferred to purchase shares in a company supplying a public utility service in its area, rather than buy up the whole undertaking; Strassburg, for example, has bought a majority of the shares in both the local tramway and the local electricity companies. Where a local authority purchases shares in a company, it is generally brought about by agreement with the private firms and individuals who are shareholders; the local authority does not necessarily secure either a majority of the shares or a right to nominate a majority

of the directors. In some cases several local authorities are shareholders in the same company. Dr. Passow is of the opinion that more of these joint public and private enterprises are likely to be established in the immediate future, although he expresses some doubt as to the permanency of this form of organisation. In several cases the local authorities have secured the right to buy out the private shareholders on agreed terms, and in at least one case have already done so.

This type of municipal trading is almost unknown in this country; it is, however, deserving of the most careful consideration, and Dr. Passow's book may be recommended as providing a very convenient means of studying the question.

DOUGLAS KNOOP

La gestion par l'Etat et les municipalités. By YVES GUYOT.
(Paris: Félix Alcan. 1913. Pp. viii + 437. 3fr. 50c.)

THIS book deals with national and municipal trading of many kinds in many countries, but it can make no claim to be a scientific study of the subject. The author has collected figures and statements of various kinds from a variety of sources, and seeks to show that it is undesirable that the State or the municipalities should do anything which can be done by private enterprise. The book appears to have been produced in a great hurry; it contains numerous slips and mistakes; the figures and statements are not always correct, and some of them appear to be irrelevant; the sources from which much of the material is taken are by no means authoritative. A few examples may be given. In one list of English towns (p. 130) eleven out of forty-seven, and in another list (p. 144) four out of twenty-four are spelt wrongly. On p. 24 we read that the London water companies were purchased by the Metropolitan Water Board for 47,500,000 *francs* (? £); on p. 151 that the population of Liverpool is 75,900 (1911 census: 746,566), and that the population of Manchester is 865,900 (1911 census: 714,427); and on p. 152 that the population of Salford is 102,000 (1911 census: 231,380). One statement (p. 123) by M. Guyot is that British municipal gas works are exempted from taxation, whereas, as a matter of fact, they pay rates and taxes like any gas company. Another statement (p. 62), referring to the Prussian State Railways, is that the Government in 1907 imposed a tax on railway tickets and abolished return tickets. The tax, in reality, was an Imperial, not a Prussian, tax. The author goes on to state that in this way the first-class fares were raised by 44 per cent., the second-class by 25

per cent., and the third-class by 15·8 per cent. The facts are these : Prior to 1907 the fare for single tickets (by slow train) was 8 pf. per klm. first-class, 6 pf. second-class, and 4 pf. third-class ; and the fare for return tickets was half as much again. After the abolition of return tickets the single fare (by slow train) became 7 pf. per klm. first-class, 4·5 pf. second-class, and 3 pf. third-class. Both before and after the change somewhat higher fares had to be paid to travel by express trains. How M. Guyot obtained his figures showing the percentage of increase in fares is a mystery, as the ticket tax is not sufficient to account for them. On p. 140 appears the statement that the London County Council made no provision for the depreciation of the tramway undertaking in 1910-11, whereas they actually set aside something like £130,000 for this purpose. On p. 226 the following statement, made on the authority of a newspaper report of a speech at a congress of Post Office employees, appears without any comment : "The Post Office Savings Bank [of the United Kingdom] loses £100,000 annually on account of bad administration and bad investments." Amongst the matters which, to the reviewer at least, appear to be irrelevant may be mentioned the reference (p. 277) to the estimate of the Naval Intelligence Department in 1909 as to the number of Dreadnoughts Germany would have in 1912, and the lengthy discussion (pp. 409-414) of the action of the United States Senate with regard to that clause in the Hay-Pauncefote Treaty which deals with the Panama Canal tolls.

The author has sought to make his book conclusive by embracing in it references to many countries and a great variety of undertakings ; as a consequence, his treatment of any one country and of any one industry is far from comprehensive. If a more judicious selection had been made of the material, if greater reliance had been placed on first-hand authorities, if more care had been taken in checking the accuracy of the figures and statements, and if the matter had been presented in a more systematic manner, the case against municipal and national trading could have been stated in a way which would have carried far more conviction.

DOUGLAS KNOOP

Die Unternehmungsformen. Von PROFESSOR DR. R. LIEFMANN. (Stuttgart: E. H. Moritz. Pp. viii+216. Price 2.50 Marks.)

THIS work is a companion volume to a treatise on *Kartelle und Trusts*, by the same author and publisher, and forms an

introduction to the study of the position and developmental tendencies of business undertakings in the present state of industrial society. It is intended for the business man and general reader rather than for the professed economist, and fully serves its purpose as a guide to the problems of organisation which will come up for solution in the near future. While it is necessarily not comprehensive enough to contain all the material required for the complete weighing of all the considerations affecting these problems, there are few points of importance left entirely undiscussed. Naturally, it is chiefly intended for the German reader, but the English reader will find it very useful precisely on account of those differences in German methods of organisation with which he is little familiar in English systems. For this reason it is to be hoped that an English translation will soon appear. Dr. Liefmann is well-known to economists for his excellent studies of the development of kartells, and the business man whose attention is not restricted merely to the happenings within his own counting house will find it to his advantage to follow the example of the academic persons whom he too frequently despises.

The book is divided into four parts: a lucid sketch of the development from home industry to the industrial undertaking of to-day, a discussion of the joint-stock company and its results, a survey of co-operation, and a brief account of publicly-owned undertakings and their limitations. The second section claims most of our attention. The joint-stock company has proved an excellent means for collecting capital for making it mobile, for spreading risk, and for distributing property. But as investment grows, so, too, does unearned income. A wealth-owning class thus finds it easy to maintain itself in possession, especially where limitation of the family prevails. The latter practice is, in Dr. Liefmann's opinion, closely related to the desire for an income derived not from personal exertion but from investment. He holds that management of companies by paid officials either may impair that spirit of enterprise on which industry has been built up, or, as in the case of banks, may lead to recklessness. The part played by banks in German industry is much more direct and important than the equivalent part played by British banks. This is mainly due to the German company law which requires that before a company can begin operations the whole capital must have been subscribed, and that at least one-quarter of the amount payable in cash must have been received. Usually, therefore, the promoters take up all the capital and issue it to

the public at a later date. This need of a greater initial command over money has led to the development of Effektenbanken, or banks which either as the whole or as a part of their business devote themselves to the financing of company-promoting. To accept short-term deposits and to make loans or investments for longer periods is an offence against strict banking; but, on the other hand, German banks work with a larger capital of their own than do English banks. Subsequently, the banks issue to the public the shares in the companies they have established, or retain a part of the capital themselves. German investors rely much on their banks, and readily take up the stocks they issue. Either in their own interests or in those of their investor-clients, German banks maintain a close connection with the companies they promote and secure representation on the boards of directors.

This close interlacing of finance and industry is characteristic of Germany, and it leads to the furthering of all plans for the cessation of competition and the increase of profits, especially by such methods as the community of interests through mutual stock-holdings, common directors, holding companies, &c. The same ends are attained in the United States through the agency of powerful individual financiers, but in Germany the holding companies are of dominant importance, especially in light railways and the electrical industries. Closely connected with the mobilisation of capital through the joint-stock system is speculation in industrial shares on the stock exchange. Well-known evils result, but, on the other hand, it is claimed that this speculation leads to an equalisation of the prices of goods, an assertion which Dr. Liefmann does not accept. These new developments of the company system require further legislative attention, especially, in the author's opinion, in the direction of greater publicity and more effective audit.

The co-operative system has developed in different directions in Britain and Germany. In the former country the co-operative idea came into activity after the industrial revolution, when there was a large factory population, and realised itself in distributive stores for the advantage of the workers. In Germany, while the small-scale style of industry was still the rule, co-operation came in to assist the small master against the large factory by means of credit banks, &c. Co-operation has, in Dr. Liefmann's view, reached its fullest development, and is now apt to lead to a reduction of the spirit of individual initiative and to the standardisation of demand; these opinions seem exaggerated.

Space does not permit of an examination of the author's views on State-conducted industry. He regards nationalisation as a remedy for the evils of private ownership which is only operative within narrow limits. The participation of the State in the coal-mining and potash industries of Germany he considers to be in no way successful. As a rule other methods of control should be sought when it is necessary to counteract the effects of private monopoly.

These somewhat disconnected references will perhaps serve as an indication of the topics which Dr. Liefmann discusses. Merely to enumerate them all would much outpass the limits permissible for this notice.

HENRY W. MACROSTY

Lectures on British Commerce, including Finance, Insurance, Business, and Industry. By THE RIGHT HON. FREDERICK HUTH JACKSON (and others). With a Preface by THE HON. W. PEMBER REEVES, Director of the London School of Economics. (London: Pitman. 1912. Pp. xvi. + 279.)

THE International Society for the Promotion of Commercial Education is apparently a development from the German association of the same name, of which Dr. Stegemann, of Brunswick, has for some years been President. The International Society, like the German association, desires to embrace within its range of activities all varieties and grades of commercial education; but its membership, as a matter of fact, consists, I believe, preponderatingly of representatives of commercial boys' schools, and of commercial academies of the older type, and its Central Committee does not this year—nor did it in a recent year for which I happen to have a report—include a single representative of these great *Handelshochschulen* which have come into existence in Germany during the last fifteen years, or of the American Universities, which have done equally great things, though in a somewhat different way, for commercial education of the highest type.

The Society arranges for a three weeks' summer school each year in some business centre. That at Havre, for instance, in 1909 brought together an audience of 144, of whom the great majority were teachers in commercial schools, not men themselves looking forward to a business career. Thus, of 48 from Germany 22 were teachers, of 24 from Austria 14, of 45 from Switzerland as many as 38, and all 7 from Hungary. Three Frenchmen only were

present; and it is pretty obvious from the report that the first concern of most of those attending the lectures was to improve their knowledge of the language of the country they were visiting.

It is possible that this state of affairs was not altogether present to the minds of the authorities of the London School of Economics when they invited the Society to hold its 1912 meeting in London; otherwise they would have been satisfied with the attendance of 203 persons "mostly from the Continent," and would not have been disappointed at the presence of "so few Englishmen." Many of those present had their expenses paid by their own governments and schools. Mr. Reeves, in his Preface, remarks that "it would be well for English County Councils, Chambers of Commerce, &c., to offer similar encouragement to their picked students." But this is already being done by several education authorities for teachers of languages in their areas; and doubtless teachers in commercial schools are as eligible as others. Certainly more could profitably be done in this direction. We are still quite absurdly insular in this country; and if half the teachers of "Commercial French" or "Commercial German" in evening classes could be given an opportunity to go to France or Germany for three weeks, it would do them a great deal of good—and possibly some little good to British trade. But we need not over-estimate the example we are asked to follow.

Of the lectures given in London ten are printed in the present volume. The first is on the Bank of England, by Mr. Frederick Huth Jackson. It shows how all is for the best in the best of all possible banking systems. Then follows one by Dr. Armitage-Smith on the British System of Taxation. It indicates, not obscurely, to the benighted foreigner how superior is the British system of taxation for revenue only—with the not insignificant exception of the taxes on alcohol—to the sort of thing they ought to be groaning under in their own countries. Incidentally it expounds Adam Smith's canons in a free-trade sense which had not occurred to the master. When Smith spoke of the desirability of "certainty," he at any rate was not thinking of the "real incidence" of import duties. Next comes a lecture on Postal Organisation, which contains some interesting bits of information, but also a large quantity of quite uninteresting detail: like the table of the London staff and their scales of pay, with entries such as this:—

<i>Class.</i>	<i>Scales of Pay</i>	<i>Total.</i>
Unestablished Assistant Inspector } of Messengers	Various	1

Of different quality are Mr. Douglas Owen's lectures on London as a Port, and on the Machinery of Marine Insurance; two well-written sketches, which will set a student thinking. Much the same may be said about Mr. Barling on British Shipping. It is amusing to see how afraid the lecturer is to speak quite frankly in favour of shipping combines. "The rebate system certainly rules out a certain measure of competition—but the position of the shipowner is at least deserving of recognition," &c. The humour of the situation is that while everybody in England still does lip service to Competition, everyone whose business makes it his interest to combine is now hard at work combining. Mr. Bisgood's two lectures on Life and Fire and other more modern forms of Insurance also have form and movement; and perhaps their matter is rather more novel. It is interesting to notice the tendency towards amalgamation in insurance business, and the practical control of the whole of the fire insurance business obtained by the Fire Offices' Committee or "Tariff." The lecturer becomes positively amusing when he describes the methods of "industrial" insurance. According to Mr. Bisgood, the £4,000 subscribed capital of the Prudential has been raised to a present capital of £1,000,000 solely by appropriations from profits, and last year it paid £550,000 to its shareholders. This is probably unparalleled; but it is this sort of thing, on a lesser scale, which makes it so difficult to ascertain statistically the rate of profit. The next lecture, on the Coal Industry, is platitudinous; and, coming from the Editor of the *Colliery Guardian*, rather disappointing. The coal miners will take note of the observation as to wages boards, that the admission of "the principle that other factors, besides selling prices, such as trade prospects, the volume of trade, &c., may be introduced in settling the wage rate" "has operated in the long run to the advantage of the workmen." But one would like to know what is really meant by a sage-sounding utterance like this: "Those who may be best trusted to form an estimate are agreed in believing that . . . a permanent rise in the price of fuel may be looked for as soon as a revival in the demand places the balance of power in the hands of the trade." There is much virtue in "as soon as."

An outline by Mr. Graham of the various branches of the Woollen and Worsted Industries completes the series.

In his Preface Mr. Reeves thus expresses himself:—

"It is a mistake to think that we are indifferent on the question of commercial education in England. The leading men in

industrial and commercial affairs are keenly and anxiously interested. But they have not yet decided what type of education is required. Let us trust they will do so before long. When the young man who wishes to enter business knows that a certain definite type of education is required, he will not be backward in getting that education."

My experience, I am afraid, is less encouraging than Mr. Reeves's. I have come across very few leading men who can be called "keenly and anxiously interested" without a straining of language. A few, very few, are really keen, though many are vaguely dissatisfied with things as they are. It is hopeless (I cannot help thinking) to expect the business world itself ever to "decide what type of education is required." Those of us who are in charge of Schools of Economics and Faculties of Commerce have the task laid upon us of translating the inarticulate desires of the business world into systematic intellectual disciplines. And I cannot but regret that Mr. Reeves should have employed, even within marks of quotation, the term "business-getter" to describe the product we are to aim at. In a sense, of course, every efficient business man is a "business-getter." But the term owes its present vogue to a rather cheap sort of "business magazine," which identifies commercial ability with adroit advertising and seductive correspondence. These have their place; but their present prominence in such magazines is due chiefly to the fact that they are the easiest things for the "business journalist" to write about amusingly.

W. J. ASHLEY

La Réclame. By VICTOR MATAJA. (Edition Pol-Moss. 1912. . 2 fr.)

THE significance of the present pamphlet lies in the fact that it is by the pen of a distinguished Austrian jurist, who in 1910 published a serious work on "Advertising" in general, which has had a large vogue on the Continent of Europe. The present study suffers from severe compression of material to an extent which almost destroys the logical significance of the concrete teaching which it is the author's aim to impress on his readers.

Another handicap to its wide acceptance in this country lies in the fact that it is addressed to the author's fellow-countrymen, who have not yet reached the same level of enterprise and progressive methods in business which are the current standard among western communities. Various principles are enunciated

and practices enjoined which in this country are methods so well known that they are on the point of being replaced. The most useful lessons which he has to inculcate are drawn chiefly from American experience. Still he throws due weight on one or two principles which, though well known, are often forgotten among us; such as, that it is at present more difficult to sell a commodity than to manufacture it (p. 14); that the effect of very extensive advertising is to make known not only the qualities, but the defects of any commodity with startling rapidity (p. 22); that the special influence of psychology on advertising is critically important (p. 30, 31); that the cumulative effect of good advertising makes the results achieved by it advance in geometrical progression (p. 39); that the manufacturer maintains touch with the consumer only through a long chain of intermediaries (p. 48); and finally, which is the keynote of the book, that no advertising will secure a permanent sale for what is not wanted by the public (p. 52).

G. BINNEY DIBBLEE

Experiments in Industrial Organisation. By EDWARD CADBURY, with a Preface by Professor W. J. ASHLEY. (Longmans, Green and Co. 1912. Pp. 296.)

MR. CADBURY'S volume contains a detailed and extremely interesting account of the various forms of welfare work which are in operation at the Bournville cocoa and chocolate factory. We have all, of course, long been aware of the general character of what his firm has endeavoured to do for its workpeople, and have been ready to join in the tribute of admiration which Professor Ashley, in his introductory Preface, pays to their active sense of social duty. I doubt, however, if many, even of those who have had the privilege of personally visiting Bournville, have hitherto fully realised how great an amount of thought and care must have been expended in the development of the various arrangements, organisations and institutions which are now flourishing there. I shall not attempt in this review any enumeration of them or any summary of Mr. Cadbury's book. To appreciate what is being done one needs, not an outline, but the detail to be found in the book itself. The underlying spirit, however, is well shown in a small rule on a matter of minor importance: "The names of a few girl employees, who suffer from weak heart, etc., are sent by the doctor to the Girls' Works Committee, and these girls are allowed to leave their workrooms

five minutes before the usual time of closing, both at the dinner-hour and in the evening, in order that they may avoid the rush which is inevitable when thousands are leaving work" (p. 96). A trifle this, no doubt, but a trifle indicative of much! Mr. Cadbury's book contains a few references to general questions—how far an employer, in establishing institutions, should make them special to his works or general to his town or village, and so forth—but practically the whole of it consists in a simple and direct account of the work of the firm. To students whose interest in economics is bound up with an interest in bettering social life, it cannot be recommended too strongly. For in it they will find set out an example of what Dr. Marshall has taught us to regard as a great need of the age—true economic chivalry.

A. C. PIGOU

Medical Benefit in Germany and Denmark. • By I. G. GIBBON, B.A., D.Sc. (London: P. S. King & Son. 1912. Pp. xv + 296. Price 6s. net.)

IN this book Mr. Gibbon maintains, and even increases, the reputation which he already possessed as an authority on this subject. Compared with his previous work on *Unemployment Insurance*, this one seems to be the better of the two. For it possesses to the full the many merits of the earlier book, and, in addition, is decidedly the more readable. As before, Mr. Gibbon is most happy in his selection both of subject-matter and treatment. He has limited his inquiries to two countries which form an admirable contrast to one another. For Germany has a compulsory, and Denmark a voluntary, system. The working of the two, therefore, can be contrasted, and a very interesting contrast it is. Moreover, in each of them the system of insurance is more widely extended than elsewhere. It is a pity, however, that at the end a chapter has not been devoted to a general comparison of the workings of the two systems, summing up what has been said about them in the body of the book.

The general method of treatment is of the same character as that adopted in *Unemployment Insurance*. The subject is divided into five chief sections, dealing respectively with choice of medical practitioners, their remuneration, control of medical service, medical and surgical requirements, and institutional benefit. Finally, there is a short chapter on insurance and public health authorities, and a longer one of general conclusions, summarising the detailed verdicts which he has given in

connection with each branch of the subject. Every section has three chapters devoted to it :—the first describing and criticising the policy and practice of Germany, the second those of Denmark, and the third giving the conclusions of the author, which are discussed at greater or less length according to their importance. Upon the chief subjects of controversy in Great Britain at the present time, such as free choice of doctor and payment by capitation fee or by visit, the experience of Germany and Denmark is most illuminating. Mention should also be made of the eleven interesting appendices which are by no means the least valuable part of the book.

Mr. Gibbon's conclusions must carry great weight. He is no blind partisan of insurance, and recognises to the full the undesirable results to which it may lead. Of these, deliberate malingering is by no means the worst; nor is it even, in Mr. Gibbon's view, a very considerable evil. Possibly he is too sanguine on this point; but he is probably right in regarding valetudinarianism as a more serious danger. This, he says, the very existence of insurance is likely to encourage by putting medical treatment and remedies within easy reach of the patients, unless the societies and the insurance authorities generally take definite steps for the education of insured persons, and not least in relation to the principles of every-day health and hygiene. For instance: "That insurance scheme which proposes simply to treat sickness is not likely to achieve very great benefit. Whatever success it may attain, it may, unless wise precautions are taken, sow almost as many, if not more, evils than it removes."

This is one of the reasons why the author proposes to combine insurance with payment by the individual person of part, though only a small part, of the cost of medical service and requirements. He regards this as one of the best guarantees against continual resort to drugs and the doctor, and a policy of this kind would do much to dispel one of the best-founded apprehensions of the profession. The proposal could, in his view, best be carried out by a system of deposit. For the organisation of the medical service he looks to the gradual growth, in other countries besides Germany and Denmark, of corporations of doctors which will deal for the profession as a whole with the societies, and within which free choice could be given to the insured persons. The general employment of full-time salaried officers is not recommended so far as sickness insurance is concerned, except as a protection against unreasonable demands. For many reasons it is preferred in the case of invalidity benefit. To a limited extent, however,

qualified practitioners outside the society might be given the right to treat insured persons. This system seems a very different one from that established in this country, but with good management the panels should in time develop into corporations of the kind proposed by Mr. Gibbon.

As regards remuneration, payment for the whole body of insured persons should be made by a fixed capitation fee, whilst that of the individual doctor should be according to services rendered—that is to say, the number of visits, consultations, operations, and so forth. Indeed, in Germany, where this system frequently prevails, the scale of charges is often fixed by an official tariff drawn up by the Government. The use of this method involves the existence of a corporation of doctors, to whom the total amount of the fees is paid over by the societies, and distributed among the various doctors according to work done. They themselves can be trusted to guard against the abuse of the method on the part of individuals. Space will not permit mention of the many other interesting proposals of the book. I need only add that the criticism throughout is keen and able, and, above all, fair; and probably the final form of any system of insurance will be not far different from that suggested by Mr. Gibbon.

N. B. DEARLE

Seasonal Trades. By various writers. Edited by SIDNEY WEBB and ARNOLD FREEMAN. (London: Constable and Co. 1912. Pp. xi+410.)

THE various studies in this book were made in connection with Mr. Sidney Webb's seminar at the London School of Economics, and it is plain from the quality of the work that the members of the seminar profited much more from researching under direction than they would have done from attending many lectures.

In his introductory remarks Mr. Webb postulates "as an economic hypothesis to be tested . . . that there is, in the United Kingdom of to-day, no seasonal slackness in the community as a whole." The hypothesis is hardly borne out by the facts, though an enormous amount of seasonal unemployment cancels out theoretically, so to speak. It is questionable whether in a world broken up by climatic seasons the residuum would disappear even if all the facts could be taken into account. The truth of the proposition that at every time of the year there is employment for every efficient person *at some wage* is theoretically unassailable, of course; but this is quite another matter. However, from

the evidence brought forward in this book and elsewhere, it is evident that the actual residuum is immensely greater than the theoretical one; and this is a thing to be explained.

In order fully to grasp the problem of seasonal employment, it is needful to examine closely the elements of seasonality and their co-ordination, as well as the absence of their co-ordination, in the world's work. Inherent seasonality is extraordinarily common in work, and it has been rendered more common by specialisation. But the great mass of it, by a system of dovetailing, has been prevented from causing seasonal unemployment. In the light of experience it is arguable that it has been one of the tasks of industrial organisation to escape the losses caused by a system of periodic dismissal and re-employment of labour, and secure the economies of specialisation without increasing these losses. Organisation to this end has not, as a rule, failed where it is calculated to pay the organiser substantially; but it has failed where the gain is not individualised. Thus, within many industries we find dovetailing of seasonal tasks, but not as between different industries. So, to use a very technical example, the fitting together of periodic demands for labour inter-industrially (as it may be expressed in a word) is lacking just for the same reason that the equalising of marginal returns inter-industrially is lacking (that is, the equalising of collective marginal returns). There are no inter-industrial interests: all interests are intra-industrial. Consequently, the setting-up of an inter-industrial agency or authority (such as a labour exchange) is essential, if seasonal unemployment is to be minimised. It is not reasonable to expect labour, in a world in which it normally functions executively under direction, to evolve effective self-organisation as the regular thing. Moreover, it is to be added that, even intra-industrially, the dovetailing of seasonality is largely wanting in the case of low-grade labour for the same kind of reason, namely, that it pays the organiser inadequately. •

For this envisagement of the problem much evidence will be found in the book before us, and much other matter relevant to it. The trades examined are the tailoring trade in London, the trade of the waiter, the cycle industry, the gas industry, the London millinery trade, the skin and fur trades, the boot and shoe trade, and the building trade. The case of the waiter is admirably analysed by Mrs. Drake. It is shown that "in the hotel or restaurant open only for a few months in the year, the practice is for two or more separate establishments to be under the control of a single management," so that one fashionable season may be

dovetailed into another, since "the success of a fashionable hotel or restaurant is made or marred by the quality of the personnel" (of the waiters), and in this way a permanent staff of waiters may be kept. In short, there is extensive and costly inter-industrial organisation for the purpose of dovetailing seasonality because it pays. As a result of this and of the mobility of the migratory waiter, "the waiter who caters for the most seasonal class in many ways suffers least from seasonal causes." Incidentally, it is interesting to learn that "tip" means T.I.P. (to improve promptness). The most complete study in the book is Mr. Popplewell's, which has, moreover, the merit (from the point of view of the realistic economist) of containing much valuable information about the economics of the gas industry apart from its seasonal features. As regards seasonality, the degree of which has declined, owing to the productive use of gas, its cause, we learn, is that production and consumption must go hand in hand; and the latter, of course, is greatest in the winter. But yardmen are busiest in the summer; consequently, something has been done to cancel out seasonality by putting some retort-house operatives into the yard as spring comes on. Another method of reducing the damage caused to the business by discontinuity of work is, it appears, to shorten the shift in retort-houses in the summer. This plan has been tried at some works with marked success. It is significant that, to a noticeable extent, the seasonal variation of employment in brick-making and gas-working, which were inversely related, got to be informally and loosely fitted together; but, with the transformation of brick-making into a machine industry, the jointing gave way. Consequently, most periodically employed gas-workers to-day have to fill in their time with casual jobs of the disorganised kind.

The fur trade, which appears to contain a large unsolved problem of seasonal unemployment, is another of the occupations treated in the book about which little information has been published elsewhere in an accessible form. Miss Bourat's monograph, which covers the ground to some extent historically, is, therefore, doubly welcome. Of the many notable points in other essays the limits of space prevent any discussion.

The detailed inquiries are introduced by Miss Poyntz in a lengthy essay on general lines. It is suggestive and thoughtful on the whole, and reveals acquaintance with the facts, but it occasionally irritates by undue depreciation of the classical economists and "orthodox" theory, and by bias. It is not sufficient, in noticing the Majority Report of the Poor Law Com-

mission with regard to unemployment merely to repeat the Minority Report's pronouncement that it is "even more inadequate and reactionary than with regard to the Poor Law." Again, it seems to the reviewer as unfair to allege that "the Manchester School (which is taken to include Adam Smith and Ricardo) regards with blind optimism the sufferings of the victims of their (*sic*!) system," as it is incorrect to say that Marx's "idea of the importance of the reserves of labour as a source of unemployment, though much amplified and corrected since the time of Marx, still forms the keynote of the best analysis of the subject." Miss Poyntz's failure to appreciate that correction has altered Marx's theory out of recognition becomes comprehensible when we find her attributing much unemployment to "the necessity (under the competitive system) for the maintenance of reserves to meet all fluctuations." But we all have our obsessions.

S. J. CHAPMAN

Die Formen des wirtschaftlichen Kampfes. By G. SCHWITTAU.
(Berlin : Julius Springer. 1912. Pp. 490. Price 12 marks.)

SOME excellent work is, as we know, being done by Russian econonusts. The name of Turgan-Baranowski, for example, has long been associated with the theory of crises, and his are not the only researches that are of first-rate importance. The latest study that comes from Russia is true to the best traditions of scholarship in that country. It is from the pen of one of its younger scholars, Dr. Schwittau, who is a lecturer at the University of St. Petersburg. He has taken industrial conflicts as his theme, and the fullness of his treatment deserves the highest praise.

We like his methodology : the book has been carefully planned and as carefully executed. Industrial conflict at once raises the question, Conflicts between whom? Between social classes, must be the answer. But what constitutes a social class? The author goes very thoroughly into the subject, tracing the history of the concept as far as one can from the Physiocrats and Adam Smith to Seligman and Nicholson, and, of course, to Karl Marx. Incidentally, Dr. Schwittau calls attention to the difference in the standpoint of the Physiocrats and of Adam Smith in regard to social classes. The former divided society into groups from the point of view of production, while the English writer in his scheme based the analysis on distribution. Altogether this part of the volume shows a mastery of the subject, and should prove very useful as a summary of doctrine.

All this is introductory matter, but withal very necessary for a proper understanding of the main issue of the book—a study of strikes—to which fully a third of the space is devoted. Nor is any aspect of the subject overlooked. The psychology underlying strikes, the organisation of strikes, the practice of picketing, what the law thinks about industrial conflicts, and much more that is germane,—all receive attention. But the most interesting section is that which deals with strike statistics. Dr. Schwittau is quite emphatic in his declaration that the German method of collecting materials is far inferior to the English. The Board of Trade has special Labour correspondents whose business this very important work is; in Germany it is placed in the hands of the local police. Further comment is needless from the point of view of exact statistics. As for the ideal system of strike figures, Dr. Schwittau suggests a scheme which should find general support. To begin with, there should be a clear delimitation of the strike unit—either the area affected, or the industry concerned, or the particular business or factory where the trouble prevails. In any event, it should be perfectly plain. Next in importance is the duration of the strike. In England, for example, no statistics are compiled about strikes that last a shorter period than a day, though in America even strikes of such brief length are noted and considered (since 1901). As for the number of strikers, a few accompanying facts should always be given—*e.g.*, sex, and whether organised workers are concerned or not. The length of the conflict is, of course, a necessary fact; so is the cause of the strike, and last, not least, what the results were—a question manifestly difficult to determine. It would be a boon to economic science all over the world if it were possible to come to some agreement about one general method of collecting and publishing strike statistics.

An interesting accompaniment of the growth of trade union influence is the resort to the boycott and the institution of the label, two topics which have not hitherto received much attention. Dr. Schwittau treats of both very fully, giving not only a description of each, but also a consideration of their effectiveness. Both in England and in Germany the label is not so well-known as in America. In England opinion among trade unionists seems to be divided upon the subject. Nevertheless, the trade union label is to be found in this country; we have ourselves eaten bread which bore a label attesting that the baker was a good trade union man.

A thorough treatment of industrial disputes must take cognisance of the organisation of both sides. This Dr. Schwittau

does. His study of masters' organisations is no less thorough than that of the men's. Finally, he devotes a good chapter to the settlement of disputes, and this particular section is distinguished by the illustrations drawn from the experience of Victoria, New Zealand, and Canada. In the rest of the book the author limits himself to the conditions prevalent in England, Germany, and the United States, conditions which, so far as the first two countries are concerned, he has studied at first hand on the spot. For the third he has had to rely on printed material, but so wide has his net been that he has swept in pretty well everything of significance.

This leads us to the last remark as to literature generally. No less than thirty pages are needed to give a list of the sources to which the author has referred. We may say that it will form a worthy adjunct to the excellent bibliography in Webb's *History of Trade Unionism*, including as it does works in four languages (English, French, German, and Russian). The book was written originally in Russian (1910), and was then translated into German (1912). The translator has performed his task satisfactorily enough, but there are numerous printer's errors which should be removed in the next edition. We cannot give a complete list, but such small slips as George III. without the initial capital, Weeb, or Ben Tilled, should certainly be avoided.

M. EPSTEIN

Industrial Warfare: the Aims and Claims of Capital and Labour.

By CHARLES WATNEY and JAMES A. LITTLE. (London: John Murray 1912 Pp x + 353 Price 6s net.)

WE like almost everything about this excellent book except the title. *Industrial Warfare* does not give at all a correct idea of its contents, and, apart from this, we cannot help thinking that the sooner the practice of speaking of industrial disputes in terms of war is abandoned, the better. The strike is not a state of war, neither is a lock-out. The sub-title, *The Aims and Claims of Capital and Labour*, however, really explains the scope and object of the book, and seems much more satisfactory. As the preface states, "Despite the universality of interest in the Labour movement, there does not appear to exist any epitome which may explain to the ordinary reader the exact significance and the probabilities of the growing unrest. With that primary object the authors have compiled this volume, though they venture to hope that even the student, the politician, and the

expert may welcome a *résumé* in encyclopædic form which may usefully supplement the more detailed and specialised literature of the various aspects of the whole question" (p. v). This plan has been carried out very successfully. The book is, of course, almost entirely descriptive, and the authors have contented themselves for the most part with a bare statement of facts, abstaining, except in one or two places, from any argument or criticism. Generally speaking, what little criticism there is appears eminently sane, *e.g.*, the view taken in the Introduction of the causes of labour unrest. The aims and aspirations of both employers and employed are very clearly and fairly explained, the information given is well arranged and put into very readable form, and the book is, as far as we are able to judge, remarkably accurate.

The main body of the book consists of ten chapters, vi-xv inclusive, which deal with the relations of labour and capital in most of our industries. They contain information as to the amount of capital involved, the profits obtained, the wages earned, the hours of labour, &c., in the particular industry under discussion; while a careful account of the causes which have led to recent disputes, as well as of the way in which these disputes have been conducted, is given in the chapters dealing, *e.g.*, with the railways, transport workers, and mines. At the end of each of these chapters dealing with particular trades there are a few paragraphs which may perhaps be described as a sort of industrial *Who's Who*, giving a short account of the principal trade union leaders, as well as of the leading figures amongst the employers. Besides these chapters, the book contains amongst other things a good statement of the views of the employers, of labour, and of the public respectively, as to the remedies for labour unrest, a good account of the extent of co-partnership and profit-sharing in industry, and a useful statement and explanation of legal rulings, especially in connection with trade unions.

Satisfactory as the book undoubtedly is on the whole, there are one or two weak points, slips, and omissions, which may be noticed. We cannot agree with the authors when they say "a general increase in the price of commodities rarely affects the very poor" (p. 7), or "there has not been much increase in the actual cost of living in recent years" (p. 280). Nor do we think it is true to say that trade unionism is now reconciled to co-partnership (p. 238). Surely more than 884,291 trade unionists were represented at the Congress in 1912 (p. 23), and why is there no mention of the Children Act of 1908 in the summary of labour legislation (ch. xxi)? These are, however, defects which

should not detract greatly from the usefulness of the book, which ought to do something towards removing the many prejudices and misunderstandings prevailing among the working classes with regard to the position of employers in industrial questions, as well as the strange and widespread misconceptions which still exist among other classes as to the aims and aspirations of labour.

H. SANDERSON FURNISS

Provincial and Local Taxation in Canada. By SOLOMON VINEBERG, PH.D. Columbia University Studies in Political Science, No. 128. (Longmans Green and Co., and P. S. King and Son, 1912. Pp. 171. Price \$1.50.)

THE medley of existing taxes in Canada, comprising at once the most primitive and the most advanced forms, can only be properly explained in relation to geographical and historical conditions, and to constitutional development. Dr. Vineberg has carried out the task with great care and thoroughness, reducing a chaotic mass of detail into intelligible order and interesting form. The hopeless failure of the personal property tax is well distinguished from the similar situation in the United States by the comparative ease and rapidity of the movement towards reform rendered possible by the absence of such constitutional restrictions as make progress so difficult in that country. An interesting point that is well made is the dynamic influence of this tax in discouraging the growth of distributing centres: Winnipeg abandoned it and reaped the advantage of her present economic position, while Nova Scotia and New Brunswick are "growing restive under a system which gives an advantage to their competitors in Quebec and Ontario," the latter giving the tax up chiefly through agitation based upon a similar grievance. Businesses which do not carry large stocks but which have large annual returns are, of course, unduly favoured.

In his ideas of reform for the business tax, corporation tax, and other imposts, Dr. Vineberg sees always the complete income tax, but it is always "not yet"—"a sense of public morality" and perfection of administrative machinery must first be developed. As an improvement upon the present business taxes he suggests a system which is not an income tax, but which is to yield the same results—a presumptive form scientifically determined. In each class of business the ratios borne by the rental value (of premises occupied) to profits are to be sampled and averaged. It is presumed that a well-defined *mode* is anticipated,

rather than an average. The result will be an index number applicable to all rents in the same business, so that a tax may be levied upon the rent, thus weighted, to give a result like a tax on profits. If businesses tend to similarity in size, are so narrowly distributed geographically that the pure economic surplus in rental value hardly varies, present stable results in relation to the time-element, and also have little scope for the personal element, such a presumptive system may give a rough approximation. But on our side we are struck with the idea of taxing cotton profits or a financial agent's income on these lines! That an inquisitorial income tax is objectionable because it makes it "impossible to conceal a lean year," would also be a somewhat refreshing point of view for our officials. The Canadian problem is bound up with the necessity for central co-ordination and conference, for the scientific elaboration of corporation taxes, and for administrative arrangements to prevent overlapping and duplication. "Let benefit enter in to designate the authority to which the tax is to be paid, while ability shall determine the amount payable," is the author's wise saying, and its force is by no means limited to the problems of the West.

J. C. STAMP

Les Finances Ottomanes. By A. HEIDBORN. (Vienna and Leipzig: C. W. Stern. 1912 Pp 295.)

THIS ambitious treatise on public law and administration in the Ottoman Empire is planned in four volumes, of which the above is the second, dealing with Finance. The first has already won golden opinions for its comprehensiveness; it treated of the sources and principles of Turkish legislation, of the head of the State, of nationality, and of justice. Let it be said at once that its companion volume is in no respect behind the first in the minuteness of its details. One would have expected a book of this kind to be a little dull. Readers will hardly find this to be the case throughout, for the historic notes on the different sorts of taxes, and the general comments on their effects, serve, here and there, as a welcome contrast to the facts and figures which the pages contain. Nevertheless, when all is said, the book is for the specialist, and he will find it invaluable.

In a country where there is a Government, but only a minimum of government (for as long as the provinces pay their taxes regularly the central power is very slack), a consideration of the

finances of the State cannot but be of great interest to the politician and the economist. The first thing that strikes the reader of M. Heidborn's pages is the wastefulness in the collection of revenue. No less than twenty-five separate offices were concerned in gathering in the income of the State, and the amount of leakage on the way may be well imagined. Gradually, however, as Turkey came more and more into contact with the modern European State-system, Turkish administration took on a new aspect. It was so in justice, in education, in finance. And at the present moment the finances are managed by two independent bodies, (1) the Council of the Administration of Public Debt, established in 1881, and (2) the Ministry of Finance. The latter is in a hopeless state of chronic bankruptcy, and though the new régime of 1908-9 did, indeed, attempt to improve matters, in a land like Turkey improvements are slow of realisation. One of the wisest provisions of the reforms was the establishment of a School of Finance in 1910 for the education of Treasury officials. Another step in the right direction was the institution of a budget on modern lines, wherein the items are classified in the most approved method of the best German text-books on Public Finance. Glance at the last two or three budgets and you will find the revenue of the State divided into eight sources: direct taxes, including tithes; stamp dues; indirect taxes; monopolies; State undertakings; State domains; tribute (from Egypt, Cyprus, Samos, and Mt. Athos); and miscellaneous revenues. It is not always easy to obtain the opportunity of studying an analysis of the Turkish budget; M. Heidborn has supplied full tables for the budgets of 1910-11 and 1911-12.

In both cases a striking fact is the proportion between direct and indirect taxation (about two to one). The greater part of the former is furnished by the heavy tithes, which are in effect taxes on the produce of the soil as well as on farm animals. M. Heidborn does not deal with the effects of taxation; his task is to set forth financial practice as it is. Otherwise he would, no doubt, have called attention to the seriousness of the burden which the tithes (the so-called *uchur*) place on agriculture, stemming its healthy development. Equally striking is the contrast between rural taxation (yielding in 1911-12 £T10,902,820), and urban taxation (£T1,645,498). For some illuminating comments on this inequality, as for an excellent account of the *tamettu*, or income tax, we would refer the student to M. Heidborn's pages.

The third division of the book is devoted to the Ottoman public debt—its appearance in 1854, its growth since then, its administration at the present time. We have carefully compared M. Heidborn's treatment of this subject with Sir Adam Block's recent report, and we can only say that it is admirable.

M. EPSTEIN

NOTES AND MEMORANDA

NOTES ON WAGES AND THE COST OF LIVING IN SOUTH AFRICA.

IN South Africa occupations are, in a general way, as varied and complex as they are at home, but division of labour has not been carried out to so minute an extent. A mason, for instance, in South Africa might find it necessary to have some knowledge of brick-making, joinery, and of machinery; a carpenter would be expected to know something about wagon-building, and a blacksmith is often called to do some fitting or engineering work. That is to say, occupations or trades are not so definitely marked as at home, and experience of work is more general.

Speaking broadly, wages in South Africa are higher than at home in all trades and occupations, owing mainly to the difference in the supply of skilled labour. The average wage, for example, of a good bookkeeper ranges from £15 to £25 a month in a moderate sized business. This in turn reacts on the unskilled labourers. The presence of a coloured race, moreover, undeniably gives a higher value to the labour of white men. This has an important effect on indigency, and makes a poor white's problem quite different from the unemployed and out of work question at home. It means that those unskilled white labourers, who, through no fault of their own, fail to maintain themselves in the aristocracy of labour which is theirs by right of colour or efficiency, fall far below the level of the coloured race. If a white man at any occupation can command only the equivalent wage of a Kaffir in the mines, for instance, his case is pitiable in the extreme. For the Kaffir on his wage is rather comfortably off; he needs little clothes, and these he buys secondhand, and his food is very inexpensive; his amusements and luxuries are very low, while in addition he probably has a plot of land around his kraal at home, and this is worked by his wives. He resorts thither at intervals to rest; his income is supplemented in this way. The white man, confronted with the high cost of living and his different standard of life, is badly off. A third element that conduces to high wages is really an extension of the first, yet different in

its application. A large percentage of the skilled workers in the mines hail from the old country ; and most of the expert engineers, draftsmen and surveyors have been imported for their particular branches of work. These men having left home and home comforts must be compensated by increased wages for their loss of home privileges. This element of sacrifice of comforts enters largely into all calculations. A man before going abroad as a colonist generally weighs up whether it is worth his while, from a mercenary point of view, to leave home, friends, and prospects for a position in the new country. If he sees that the higher wage obtained will enable him to save more *ceteris paribus*, he is better off. So this element of being able to save more enters into prominence.

Some high wages paid in the mines are, as at home, due to the character of the labour and of the work, apart from supply and demand. Some types of labour are dangerous and the mortality great. In the gold mines pneumonia and phthisis are caused by the fine dust which the miner encounters in drilling the rock. These diseases may or may not be prevented, but the fact that the danger exists enters somewhat into the money price paid for the labour. The wages in the gold mines on the Rand are greater than the wages in the coalmines. A miner's wage in a gold mine averages daily from 21s. to 35s., according as he works by shift or by contract. It is rare that an actual coal-miner gets 20s. a day. The average in the Natal mines is lower, and lies between 14s. and 21s. per diem. The average wage of a carpenter, bricklayer, fitter, or the like is 20s. a day ; and while the man is single he can save about 8s. out of this and live well on the remainder. But for the married man in Johannesburg to keep a wife and family on 20s. per day is not an easy matter at the present scale of prices. Certain firms in Johannesburg discourage marriage among employees earning a salary of under £300 a year.

In the early days of the mining industry the farmers of the Transvaal were able to supply mealies, meat, eggs and vegetables to the mines, and got very good prices for them. This local market proved a great impetus to the farming industry as a whole, but after the junction of Johannesburg with the Cape by rail in 1892, and subsequently with Natal and Delagoa Bay, great quantities of food were imported from overseas, and the farmer temporarily lost his control over the market. Incidentally it may also be noted that the appearance of the railway threw out of employment a vast number of transport riders, as previous to

this all goods, foods, and merchandise, machinery, &c., were carted to the mines by wagons. The competition for a time paralysed the farmers and dislocated the supply of labour. They received a further set back owing to the war, which disorganised them and dislocated the supply of labour. During this time most of the necessities of life were imported to Johannesburg, Pretoria and other towns, by rail from the Cape and England. However, the farmers latterly are making use of the market at their doors, and soon a time will come when they will be able to supply practically all that is necessary apart from luxuries.

A general examination of retail prices of food sold to-day at Johannesburg shows a difference of from 50 to 100 per cent. in price as compared with the prices of similar articles in England. This difference is due partly to the greater cost of production and partly to the high prices obtained for other articles, such as clothes, furniture, &c. For the prices paid for these articles tend to affect prices of food by the general economic levelling up which takes place; the baker and the market gardener, having to pay the high prices demanded for the other articles, raise prices accordingly. A characteristic instance of this occurred to the writer just after landing at Capetown. After the monotony of life on board ship, a glass of milk was thought to be a delicious beverage, for all milk on board was sterilised and not very palatable. Sixpence was charged for a glass which at home would be easily procurable for a penny or twopence.

Coming to conventional necessities, there is a great variation of prices according to the article in question. It must also be borne in mind that out of a total import in 1909 of £27,000,000, £6,000,000 were articles of food and drink; and in nearly all cases there is a tax on these articles. Therefore the prices obtaining throughout South Africa differ materially from those at home, not only by the extra cost of freights, but also by the amount of the duty. And as happens in nearly all protected countries where food and other necessities are taxed, the prices of luxuries and amusements are correspondingly greater than in those countries where the former are not taxed. This is simply an illustration of the interdependence of economic facts; we cannot raise the wages of the plasterer without at the same time affecting the wages of the carpenter. Crockery, articles of decoration, sweets, paintings and fixtures are from 50 to 200 per cent. dearer than at home. Tobacco, a conventional necessary, is cheaper, as a great deal is grown in the country, but if one wants English tobacco one has, of course, to pay more for it. Beer,

lemonade, &c., are all 100 per cent. more than at home, also prices of admission to theatres and other places of amusement, items which are really important factors in a town-dweller's expenditure.

But the greatest difference in the cost of living in South Africa as compared with home, especially in the towns, is undoubtedly rent. This factor stands pre-eminent. It is particularly so in Johannesburg and Pretoria. There are three main causes for this; firstly, the high value attached to the land in and near the gold mines; secondly, the scarcity of houses; thirdly, the cost of labour and material. People at first were too much engrossed in digging or speculating for gold to trouble about building houses. The dominating idea was to make money and get away. Again, materials and labour being high, houses could not be put up at a small cost. Since 1908, in and around the big towns of Cape-town, Johannesburg, Pretoria, and Durban, with the advent of tramways, suburbs are springing into existence, thus bringing cheaper land and healthier surroundings within reach of the townspeople.

To-day the building trade is very flourishing in all these districts and houses are being built remarkably quickly. This tends, of course, to lower rent and to bring a healthier tone to the municipality; but even now prices are high. Two rooms, very small and unfurnished, 8 feet by 10 feet, and 10 feet by 12 feet, two miles from the market square in a poor quarter of Johannesburg, fetched £5 a month. In the same quarter there were two rows of workmen's cottages with four rooms and a bathroom, but no kitchen, at £6 10s. a month. These, too, in a dusty, very dirty part of the town, quite near to the mines. In the suburbs a four-roomed house with kitchen and bathroom, suitable for an artisan, was obtainable for from £8 to £12 a month. In the country districts rent is, of course, lower, and a house of the latter description, with a good garden, at a place like Vryheid, in Zululand, ranges from £4 to £7 a month.

Mr. Aiken, in his report before the British Association on the "Cost of living in Johannesburg," says: (1) A brick house of four rooms and a kitchen costs as follows:—

<i>Materials.</i>			<i>Labour.</i>		
	£	s. d.		£	s. d.
House, brick, stone, and mortar	142	17	0	Skilled	194 14 0
Imported wood and iron gates and furnishings...	150	15	1	Unskilled native	44 7 0
	£293	12	1		£239 1 0

(2) For a brick house of three rooms, kitchen, and bathroom, the total cost would be a little less, viz., £495 15s. 8d. A wood and iron house costs less. The estimates given are contractors' costs, and in ordinary circumstances the costs to a proprietor, not a builder himself, will probably be at least 10 per cent. higher. This is to say a house of No. 1 description would cost £585, of No. 2 description £545. The value of the ground would be on an average £200, and in some cases much more. Thus, from the above, the total price must be £785 for No. 1, and £745 for No. 2, on which a rental of £96 to £144 per annum is charged.

Comparing above with figures given in the Board of Trade's report, Cd. 3864 (1908), we find the average English artisan pays on an average from 4s. 6d. to 5s. 6d. a week in the case of four roomed, and 5s. 6d. to 6s. 6d. in the case of a five-roomed house of this description. That is to say, at the most, about £16 18s. a year, as compared with anything from £60 to £96 and £144 per annum in South Africa, prices varying from country to town.

There are one or two other items which it would be well to note under this heading. The first is the cost of travelling. On the railways there are only two classes, first and second, third being usually reserved for natives. Generally speaking, everyone who is anybody travels first, and only the lower middle class travels second. Distances are greater and fares dearer than at home. Certain concessions are made for long distances and return fares, season holiday ticket, &c., but even then the cost is great. A return ticket from Vryheid to Johannesburg (622 miles) costs £5 first class. The railways of the whole of South Africa are now under one management: they are owned by the State, and in the past they have been worked at a large profit; naturally it has been pointed out that this is an indirect form of taxation. Since the Union great economies have become possible, some of which have already been carried out, while others are promised. As is natural in a country where high wages are general, holiday-making is proportionately expensive, as distances to the coast are very great, and the cost of accommodation is generally dear.

Another element is the cost of education. Primary education in the Transvaal is free, but not in Natal and Cape Colony. Under the Union it is proposed soon to make education free and compulsory. Great strides have been taken by Natal, which is pushing ahead rapidly; but even so there are only a few good high schools, and these are expensive, as the pupils in the country have to travel long distances and pay for board. Books and

stationery, too, are very expensive; in our opinion too much so considering the fact that they are imported free of duty. The booksellers must be making more than a fair remunerative profit on their sales. For example, all the 1s net books in the Everyman or World's Classics are charged 1s. 6d. here, except at the coast towns and in one or two places in Johannesburg, where they are 1s. 3d. On books which are not net the increased charge is often much greater.

It will be seen on examining the import and export lists of South Africa that the country as yet does not produce sufficient articles of food and drink for itself; the main bulk of its energies is devoted to mining and not to manufactures, which therefore must be imported. It naturally follows that these will be dearer than at home, whence most of them come. In addition to the cost of freight thither, must be reckoned the tariff, varying according to different articles, on all manufactures.

Following the method passed by the Indigency Report of the Transvaal for 1908, certain comparative figures for the cost of living can be obtained to give a general idea of the difference in the cost of living of the working classes in both countries. (The basis of comparison being the report of the Board of Trade, C'd. 3864, 1908.) The figures given in the report are based on the working-class budgets of 1,944 families in 72 towns, whose weekly wages vary from 20s. a week to over 50s. The average wages of properly qualified artisans in such trades as the building, engineering, furniture making, and printing trades, are between 30s. and 42s. per week, and the wages of their labourers and assistants vary from 18s. to 27s. per week.

Taking first the case of the qualified artisan whose earnings amount to 35s. to 40s. a week, an examination of 292 cases in England shows that on an average each family earns 36s. 6½d. per week, that the number of children is 3·4, and that 22s. 3d. is spent in food per week, viz., 60 per cent. of its income. The average weekly diet consists of the following articles:—

10 lbs. Flour	20 lbs. Bread	6½ lbs. Meat
1½ „ Bacon	½ „ Cheese	2 „ Butter
16 „ Potatoes	2½ „ Rice	½ „ Tea
½ „ Coffee	5½ „ Sugar	10½ pints Milk
12 Eggs	2½ „ Tapioca and Oatmeal	

To these must be added a certain quantity of vegetables, jams, currants, and condiments, costing on an average 3s. 10½d. per week, under "Other Costs" heading.

By calculating the cost of these articles of the same quality in

Johannesburg and the rent, we get at an approximate comparison of costs at actual figures.

Artisan class, per week :—

<i>London.</i>				<i>Johannesburg.</i>	
			s. d.		
Food	...	...	25 2	84s. 9½d.	
Rent	...	...	5 6	25s. to 40s.	
Other costs	...	...	8 9½	18s. 7d.	
Total	...	...	39 5½	78s. 4½d. to 93s. 4½d.	

Thus these totals represent the weekly expenditure in London and Johannesburg respectively. An artisan, therefore, in Johannesburg would require at least from £16 to £20 a month in order to live at the same standard in the matter of food, style of house, clothing, &c., as he would require if living in England. As the standard of life is somewhat higher in the Transvaal this figure is somewhat low. Thus the cost of living is almost exactly double on an average. Taking the efficiency as being equal, his labour is probably over three times as expensive when we take into consideration the standard of life and comfort.

It is unnecessary to compare in detail the weekly budget of the labouring class, for in reality the white unskilled labourer, as a class, is at present hardly existent. Large numbers, if not the greater number, of unskilled labourers in England get less than 21s. 4d. per week. The labourer in Johannesburg, say, living at the standard of the English labourer, would require about £8 a month if he lived in a cheap two-roomed house (non-existent at present), and up to £10 a month if he lived in what would be a respectable house.

The cost of living is of course considerably less in country towns, mainly owing to the difference in rent. In the case of groceries the variation from Johannesburg prices is small; in fact in country towns it was found that groceries cost more because, though the railway and freight charges would be about the same, the turnover was less; competition and large turnovers in the big towns tend to lower prices. Johannesburg prices are highest in meat, country prices from 15 per cent. to 20 per cent. lower. Milk is 30 per cent. cheaper in the country than on the Rand. Eggs 40 per cent. lower in the country than in Johannesburg, bread is nearly the same in all towns, but in some country places it is up to 15 per cent. cheaper. Taking rent, food, and coal together, the cost of living in Pretoria, Pietersburg, and Vereeniging is from 8 per cent. to 12 per cent. less than it is along the Rand, while in other towns on the Transvaal it is from 15 to

20 per cent. cheaper. In rural districts the cost of living is on the whole considerably less. A fair idea may be obtained as follows: board and lodging for single men in the country costs £6 10s. a month, including washing; the same type of room and food in Johannesburg would cost from £9 9s. to £10 10s. per month. In the coast towns the prices vary from £7 to £8 10s.

J. MORGAN REES

A NEW HISTORY OF THE POST OFFICE.

A SYSTEM of Posts has existed in this country for nearly five hundred years for the conveyance of Government despatches, and as a public service for about three hundred years. It is a curious fact that the first serious attempt to write a history of this service was not made until about fifty years ago. At the beginning of the seventeenth century the union of England and Scotland made the organisation of the Postal Service an important part of Government administration. The constitutional struggle between the Crown and Parliament which followed made the control of the Posts a matter of serious contention between the two parties. In the first half of the century proclamation followed proclamation for the control of Posts, and in the second half the importance of the Post Office as a source of revenue and as an instrument for the encouragement of trade and commerce became more fully recognised; but although the journals of Parliament and the records of the public departments were considerably occupied with matters relating to the Postal Service, no general writings on the subject are available for the historical student.

In the eighteenth century the revenue of the Post Office increased rapidly, and attention was more and more turned to it as a source of supplies in support of the wars in which this country was engaged, the rates of postage being increased by successive Ministries. The extension of the system of Posts to meet commercial requirements also obtained much attention, although perhaps more in the interests of revenue than of the welfare of the country. Members of Parliament took a steady interest in the franking privileges which they enjoyed, and to such an extent that the interval between one Parliament and another caused a marked increase in the postal revenue of the year. Nevertheless, no history of the Post Office was written, and in those days public departments gave no account of their proceedings in annual reports.

The taxation of correspondence for the purpose of raising revenue reached its culminating point in the early years of the nineteenth century. So long as the struggle against Napoleon continued the nation bore its burden patiently; but when peace came and the commerce of the country increased as if by magic, while at the same time the use of machinery enormously increased the power and range of manufacturing industry, the demand for a cheaper and more general system of communication grew proportionately. It was so difficult, however, to transform a Postal Administration which had long been organised as a machine for raising revenue rather than as a means of meeting public requirements, that an almost revolutionary outburst of public opinion was necessary to secure the introduction of penny postage. Even then there was no history of the Post Office available for public information, and the Department was known only as it affected the daily life of each individual.

In 1844 attention was called in Parliament to the opening in the Post Office of letters addressed to Mazzini and his friends in this country under the authority of warrants from the Home Secretary, and a serious public agitation followed. As a result Committees "of Secrecy" were appointed by both Houses of Parliament to inquire into the authority for the practice and it became necessary to investigate its history. The control of Posts as a safeguard against foreign enemies and domestic agitation was, however, a principal object of the policy of successive Governments during the sixteenth and seventeenth centuries, and the inquiry practically became one into the history of the Post Office as a Department of the Government. The report of the Committee of the House of Commons gave a general sketch of the struggles for the control of the Post Office in the reign of Charles I. and under the Commonwealth, and this sketch was illustrated by an Appendix containing a large number of historical documents consisting of patents and warrants, proclamations and Acts of Parliament relating to the Postal Service, as well as numerous extracts from the journals of the House of Commons from the reign of Henry VIII. to the year 1837. This collection, which was chiefly compiled by Sir Francis Palgrave, then Deputy Keeper of the Records, has been the source from which subsequent writers upon the early history of the Post Office have drawn most of their materials. It is only in recent years that other sources of information have become available in the numerous calendars of State papers.

The first annual report on the Post Office in 1854 contained

a short general account of Post Office history. The report was signed by the late Duke of Argyle as Postmaster-General, but the historical portion is known to have been written by Mr. Scudamore, who afterwards became well known in connection with the transfer of the Telegraphs. In its compilation considerable use was made of the old books of Post Office accounts, dating from about 1677, which are still in existence. Mr. Scudamore, who was a contributor to *Punch* and other periodicals as well as an official, was a clever writer, and his sketch, although very brief, has been much quoted by later writers.

In 1864, Mr. W. Lewins, an officer of the Surveying Establishment of the Post Office, published *Her Majesty's Mails*, an octavo book of some 350 pages, which was designed as the first of a series of histories of the Government Departments. The other histories, if written, were never published. In this book considerable use was made of the report of the Committee of 1844, but Mr. Lewins had also collected a good deal of information from local histories and guides and directories as to early postal rates and arrangements. The chief part of the book is, however, occupied with an account of the penny post agitation and of the subsequent administrative changes, of which, to some extent, Mr. Lewins had personal knowledge. For instance, he was able to give particulars of the staff and organisation of the Post Office in his day, and to describe the growth of the railway travelling Post Offices and the establishment of the Post Office Savings Bank.

Nearly thirty years passed before the next attempt at a history of the Post Office was made. In 1893 Mr. Herbert Joyce, then Third Secretary of the Post Office, published *The History of the Post Office from its Establishment down to 1836*. Mr. Joyce was an official of long service, and probably his reason for stopping short before the introduction of penny postage was that his personal knowledge of the administration of the Post Office during his own years of service, and his training by the men who were responsible for that administration during the earlier years of the penny postage era, made it difficult for him to deal with the subject without touching on questions which seemed to him too confidential for public discussion. Besides this, the description of the various new branches of Post Office business, such as the Savings Bank, the Telegraph and Telephone Services, and the Parcel Post, all of which came into existence during his service, would probably have made his book too bulky. For the practical student, however, the fact that Mr. Joyce's history stops

short at the beginning of the period when Post Office administration began to have serious importance for the student of current social questions considerably detracts from its value, and one cannot but regret that Mr. Joyce, who must have known in relation to the Post Office so many of the things which are never written in histories, did not give us the benefit of his personal knowledge of the history of the Post Office while it was in the making. The preparation of this book had been a labour of love for many years, and a good deal of its contents were derived from an independent study of papers in the Record Office and in the archives of the Post Office, as well as from old Parliamentary printed papers. Unfortunately, however, Mr. Joyce gave no references to his authorities, and, owing to the absence of printed indexes and calendars of State papers, such as the modern student has at his disposal, the work of research among State records was a more difficult process than at present, so that Mr. Joyce necessarily missed 'a great deal of the material which is now available.

Mr. Joyce's work has since remained the standard history of the Post Office, but we have now another history produced by an American student. The writer is Mr. J. C. Hemmeon, and the book is published by Harvard University as No. vii. of its series of Economic Studies.¹ Mr. Hemmeon tells us in his preface that his materials have been obtained from various libraries in America and at the British Museum. The work, therefore, does not go beyond the printed records which are available for all students; but the study of these records has been very thorough, and their extent is, of course, much greater now than at any previous time, so that, even so far as the early history of the Post Office is concerned, the book is more complete than Mr. Joyce's work. We also have on every page numerous references to authorities. In particular, Mr. Hemmeon appears to have made very extensive use of the reports of Parliamentary Committees and Commissions which touch on matters of Post Office history, and in this manner he has obtained a good deal of financial information, of which there was little in Mr. Joyce's work.

As Mr. Hemmeon writes for the information of the modern student, he naturally deals to a large extent with the recent history of the Post Office, and the greater part of his book therefore covers ground which was altogether excluded from Mr. Joyce's survey. Also as a student he is free to discuss questions

¹ *The History of the British Post Office*, by J. C. Hemmeon (Harvard University, 1912). Pp. xii + 261. 8s. 6d. net.

which Mr. Joyce as an official left out of sight; such as, for instance, the relation between the staff of the Post Office and the State as an employer, the history of which is brought down to the issue of the report of the House Select Committee in 1907.

For information as to the modern administrative changes in the Post Office, Mr. Hemmeon has relied chiefly on the annual reports of the Postmaster-General. These reports are easily available for students, but, nevertheless, it is convenient to have the chief results summarised in a brief and accurate form. In this way we get particulars of such subjects as the insurance and registration of letters, the express delivery service, newspaper postage rates, book or halfpenny post, pattern and sample post, postcards, parcel post, postal orders, Post Office Savings Bank, and annuity and assurance business. There are also separate chapters dealing with the Telegraph System of the Post Office, and the relations between the Post Office and the Telephone Companies, which are based chiefly on the reports of the Parliamentary Committees which have considered these questions. In dealing with these modern matters it cannot be said that Mr. Hemmeon has expressed any original views. For instance, in dealing with the telegraphs he stops short at the statement that their financial result has been unsatisfactory, without considering to what extent the indirect benefits of an extended telegraph system are a sufficient compensation for loss of revenue. The chapter on telephones also dwells chiefly on the restrictions placed on telephonic development as a result of the Government monopoly of telegraphs. The historical facts are, however, accurately narrated in a useful summary without any conscious intent to influence the mind of the reader.

Mr. Hemmeon gives a useful bibliography, and his book undoubtedly provides for students a more convenient and more complete summary of Post Office history than has hitherto been available, although his book cannot be regarded as a final and complete history of the Post Office. Even as regards printed books his studies have not been complete. For instance, he has overlooked such a book as Norway's *History of the Post Office Packet Service from 1793 to 1815*, and no use has been made of the earlier unprinted records of the Post Office which in recent years have been carefully gathered together in the Record Room at the General Post Office. A good deal of work also remains to be done by any enterprising student among the original papers in the Record Office, of which the published calendars necessarily do not give complete summaries.

THE TAX EXPERIMENT IN WISCONSIN.

THE experiment in income-taxation that is now being made in Wisconsin is a crucial one in relation to the future of State and Federal finance in this important sphere. Wisconsin has for some years had the reputation of being one of the most progressive States of the Union in its fiscal administration, and it is not without significance that in this State also there has been the most marked movement away from the control by the amateur in taxation and so-called "practical man of commerce," which has in the result been so much discredited in America, towards a proper combination of academic and business elements, and a due infusion of inductive and scientific study in public affairs. Wisconsin, for example, has led the way in an interesting library and research combination between the State administration and the regular university routine, in which the resources and experience of each side are made practically available for the other. In this State, too, the prominence of a university representative, Professor T. S. Adams, upon the State Tax Commission is a notable feature. His efforts and those of Professor Delos Kinsman (author of the *Income Tax in the Commonwealth of the United States*) resulted in very important alterations in the original proposals for the new tax. When it is added that the administration is now in the hands of Mr. K. K. Kernan (whose valuable inductive study of forty systems of income taxation was recently reviewed in this JOURNAL), it will be seen that nothing that experience and study can suggest has been absent at the inception of the system. Indeed, the law is highly esteemed as the last word of wisdom and experience, and it is stated on all sides that any failure in the result must be due only to defects in administration. All neighbouring States are agog with attention, and will be ready enough to scrap their ineffective personal property taxes and follow the new system if it succeeds. Success will be a complete demonstration that personal property may safely be superseded by income as a basis of State taxation, and that a highly centralised administration is effective and economical.

The old system is not wholly abolished, but the "personal property" now exempted includes money and credits, stocks and bonds, personal ornaments habitually worn, household furnishings, farm, orchard, and garden machinery and implements; and the old limits of value for exemption of "one watch carried by the owner," and "pianos, organs, and melodeons," have gone. Farm animals

and merchants' and manufacturers' stock still remain chargeable, but there is a provision that receipts for taxes thereon may be used as cash in paying the income tax, so that virtually the trader pays whichever tax may be the higher! Without attempting a detailed description of the system, we may touch upon the points of chief interest to British students. The assessment is upon a "total income return" in one sum according to a graduated scale. The family is taken as a unit, as the incomes of wife and childrer are included, but whereas the exemption limit is \$800 for an unmarried individual, it is raised to \$1,200 for husband and wife, and an allowance of \$200 is made for each child under eighteen years of age. For each additional person for whose support the tax-payer is legally liable, and who is entirely dependent upon the tax-payer for his support, an allowance (analogous to the Prussian case, but not restricted by a total income limit) of \$200 is given. These exemptions are allowed from incomes of all amounts. For individuals the graduation is not effected by applying different rates to the varying total incomes (*net* after allowance for exempt sums, &c.), but by the following method:—

The tax upon \$5,000 would consist of—

1 %	upon the 1st	\$1,000	..	..	..	..	\$10.00
1½ %	" "	2nd \$1,000	...	...	...	...	\$12.50
1½ %	" "	3rd \$1,000	...	...	...	...	\$15.00
1½ %	" "	4th \$1,000	...	...	...	...	\$17.50
2 %	" "	5th \$1,000	...	...	...	...	\$20.00
Total tax							\$75.00

\$75.00 would be but 1½ per cent. of \$5,000. The true rate varies from 1 per cent. on the first \$1,000 of taxable income to 2.95 per cent. on \$12,000, and 6 per cent. on all sums above that—the composite rate, however, never reaching a full 6 per cent.

The return for trade, &c., in all cases is highly inquisitorial, since it shows the gross turnover, and all the expenses—it is, in fact, an abbreviated trading and profit and loss account, but on a basis of actual *cash* receipts and disbursements, and provision is made for accepting "earnings" for a basis rather as the exception than the rule. So the "inventory" or items of stock at the beginning and end of the year—so vital to the British conception of profits—is provided for at the end of the return, as a mere addendum, serving to furnish the taxing authority with the opportunity of adding any increase to the "cash" result; but it is by no means clear that any deduction would be allowed for a decrease!

The annual value of a residence occupied by the owner has

of course to be included as income, but, judging by the amount of paternal persuasion in explanatory literature that is necessary, the idea is not yet acclimatised.

The provisions for companies and corporations are highly ingenious. There is no attempt to apply graduation to the *absolute* amount of profit, and thus to penalise the large concern merely because it is large, nor is the German method followed of allowing an exempt percentage upon capital, but the device adopted seeks to tap the unearned increment. If the proportion which the taxable income bears to the assessed value of the property used in making the income is

	Less than	1% the rate of		tax is 1 %
	More than	1% but not over	2%, rate of tax is 1½%	
	"	2% "	3% "	1½%
	"	3% "	4% "	2 %
and so on up to	"	11% "	12% "	6 %
	"	12%	"	6 %

To illustrate by a concrete example : Suppose that a concern has a plant assessed at \$200,000, and taxable income to the amount of \$10,000. As \$10,000 is 5 per cent. of \$200,000, the rate would be $2\frac{1}{2}$ per cent., and the tax would be \$250. If the assessed value of the plant was \$400,000, the proportion would be $2\frac{1}{2}$ per cent., the rate $1\frac{1}{2}$ per cent., and the tax \$150. If the assessed value of the plant was \$50,000 the proportion which the taxable income bears to the assessed value of the property would be 20 per cent., and the rate of tax would be 6 per cent.

The general object is to adjust the rate of taxation upon corporations to their earning power. But such earning power is based upon the relation of the taxable income to the assessed value of the property owned by the Company in the State, and actively used and employed in the acquisition of such income. Thus the rate paid bears no direct relation to that for individuals. In so far as "assessed values" are fixed on a cost basis, or by a unit method such as superficial area or "so much per spindle," the method may give logical results, but in so far as market values and the element of "earning power" enter into them, the method moves in a vicious circle, and only transitory surpluses will be touched, for they cease to furnish an independent criterion by which profits may be judged to be large or small. Like other attempts to find an independent "faculty" in profit-dividing corporations, this tax will act as a differential favour (in the share market) on stocks of low yield, and conversely a burden upon those of high yield.

The arrangements for dividing the profits of concerns trading beyond the boundaries of the State are also notable. The common Prussian Communal System of division according to wages paid in the respective areas is not applicable; the two deciding ratios are gross revenue and assessed values of property owned, not in a mean (or other proportion) between the results, following the German practice where various criteria are chosen, but in the following peculiar manner:—

"Take the gross business in dollars of the corporation in the State and add the same to the full value in dollars of the property of the corporation located in the State. The sum so obtained shall be the numerator of a fraction of which the denominator shall consist of the total gross business in dollars of the corporation, both within and without the State, added to the full value in dollars of the entire property of the corporation, both within and without the State. The fraction so obtained shall represent the proportion of the capital stock represented within the State."

Taking the case of a concern which does business both within and without the State with a net profit of \$34,200; the gross business done within the State is \$50,000; the property located within the State is worth \$20,000; the business done within and without the State is \$150,000, and the total property within and without the State is \$21,000. We have the formula

$$\frac{50,000 + 20,000}{150,000 + 21,000} = \frac{70,000}{171,000} = \frac{70}{171} \text{ of } 34,200 = \$14,000 \text{ taxable.}$$

The more one tests the method in relation to different proportions and classes of business the more of an arithmetical curiosity does it appear.

The individual is allowed to deduct from his gross income dividends from a taxed company, but if from a partially taxed company, such as the above, only a *like proportion* of the dividend is regarded as taxed, the remainder being treated as untaxed income from outside the State. There seems to be no provision whereby the individual is to be kept advised what this changing proportion is—evidently he must find out for himself.

Although the administration is central and unified, the revenue will go to the local areas, 20 per cent. to the county, 70 per cent. to the village, city, or town where it is collected, and only 10 per cent. to the State towards administrative expenses. The provisions for allocation of the tax from one payer are very elaborate, even more so than the following example published by the Commissioners would indicate:—

* "A, person residing in the city of A, realises a net income (after making the deductions which the law permits) of \$2,340, and also owns a hotel in the village of B, from which he receives a net income of \$540, and a farm in the town of C, which yields a net income of \$720, and his combined income is \$3,600. He is a married man with no children. Deducting the exemption of \$1,200, his taxable income is \$2,400, and his income tax—

1 % of first	\$1,000	...	...	...	...	\$10.00
1½ % of second	\$1,000	...	...	...	...	12.50
1½ % of \$400		...	...	...	...	6.00
Total...		...	...	...	...	<u>\$28.50</u>

As the income was derived \$2,340, or 65 per cent., from the city of A, \$540, or 15 per cent., from the village of B, and \$720, or 20 per cent. from the town of C, the tax should be redistributed—subject to the subsequent adjustments already indicated—in the same proportions, that is : 65 per cent. of \$28.50 or \$18.53 to the city of A, 15 per cent., or \$4.27 to the village of B, and 20 per cent., or \$5.70, to the town of C.

As a final feature of interest may be mentioned the effort made to secure returns complete in every particular, since the assessor is subject to a penalty of five dollars to be deducted from his salary "for each question unanswered"! The Britisher will think of his own forms, and his local assessor.

J. C. STAMP

NOTE.—Since the above was written some important details are to hand. The first year's yield is £700,000, or considerably more than the yield of the *whole* federal tax in 1863. In Milwaukee alone the entire proceeds of income taxation in any former year in all the States put together are exceeded. Two-thirds is assessed upon corporations, 5,535 in all, of which 3,977, or 72 per cent., are assessed at the highest rate (6 per cent.), not more than 200 being assessed at any one of the lower rates. Greater prominence is to be given in future to "stock" or "inventory" in computing liability.

OFFICIAL PAPERS

Departmental Committee on matters affecting Currency of the British West African Colonies and Protectorates. Report.
[Cd. 6426.] 1912. Price 8½d. *Minutes of Evidence.*
[Cd. 6427.] 1912. Price 1s. 2d.

THIS Committee has recommended the establishment in the five Crown Colonies of West Africa of a gold exchange standard, with a specific silver coin, closely resembling the standard estab-

lished in India. Indeed, the details of the Committee's proposals have so little novelty in them as to call for small notice. The Colonial Office have accepted the Committee's recommendations, but have referred them to the authorities of the Colonies in question before actually carrying them out. The interest of the Committee's report for students of monetary affairs lies mainly in the evidence which they have collected of the currency arrangements existing hitherto.

At present the main media of exchange are silver coins of the United Kingdom. In 1911 the British Mint sent to West Africa no less than £874,850 in sterling silver, and the amount of our silver issued since 1901 for use in West Africa falls but little short of what has been issued for the United Kingdom itself; and in recent years the profits of the Mint have been greatly swollen by receipts from this source. This silver, although limited legal tender here, is in the peculiar position of being unlimited legal tender in West Africa. In the event of there being a flow of money out of West Africa at any time, no provision exists for its redemption in gold at par. The principal English joint stock banks have an arrangement with the Bank of England by which they may pay in a certain amount of silver coin in a given period, but if the Bank is asked to take silver in excess of this amount, the payment of a commission is required.

If the recommendations of the Committee are adopted, and a new specific silver coin is introduced, it will be necessary in the course of time to withdraw British silver from circulation. The Treasury have agreed to take back an amount not exceeding £100,000 in any year.

The Committee suggest that in the case of a new note issue, the introduction of which they propose, the coin reserve should amount to not less than three-fourths of the value of the notes in circulation. Most economists would probably agree that a system of legal reserve amounting to a *fixed* proportion of the circulation is nearly always vicious, because, as soon as the reserve has sunk to the prescribed ratio, the redemption of any further note involves a breach of the law. When the fixed proportion is so high as three-fourths this objection has special force, because the reserve actually held is not likely to exceed the legal reserve by any very great amount.

The Minutes of Evidence contain a good deal of interesting information relating to currency practice in semi-barbarous countries under civilised administration.

J. M. KEYNES

Royal Commission on the Natural Resources, Trade, and Legislation of Certain Portions of His Majesty's Dominions.

Minutes of Evidence. Part I.: Migration. [Cd. 6516.] 1912. Price 2s. 9d.

Part II.: Natural Resources, Trade, and Legislation. [Cd. 6517.] 1912. Price 3s. 6d.

THESE first instalments of the Report of the Dominions Commission contain no more than minutes of preliminary evidence taken in the United Kingdom, together with some papers laid. The first volume treats principally of the facilities for emigration to the principal colonies, and comprises evidence from the Agents-General and from representatives of a number of emigration societies. The second volume deals with a great variety of topics, of which the proposal for a British Empire Trade Mark is dealt with at the greatest length. The Commissioners proceeded in January, 1913, to New Zealand and Australia.

Consular Report on the German Law of 1909 against Unfair Competition. [Cd. 6006-2] 1913. Price 2d.

THIS summary is by Sir Francis Oppenheimer. The general principle of the German law is as follows: "Whosoever commits in commercial intercourse for the purposes of competition acts which are contrary to 'good faith' can be brought before the courts, for the purposes of an injunction and the payment of damages." It has been held that "acts" are deemed to be contrary to "good faith" if they are contrary to the sense of decency of the fair and just-minded among the class concerned. Besides this general principle, the law refers to certain specific abuses of unfair competition, of which the chief are abuses in advertisement, abuses in connection with "sales" (*i.e.*, clearance sales, &c.), unfair competition arising out of deceptive quantities sold in retail parcels, the bribing of employes, and unfair comment by a competitor against a man's business reputation.

Statement of the Rates of Import Duties levied by Foreign Countries upon the Produce and Manufactures of the United Kingdom, so far as notified to the Board of Trade in October, 1912. [Cd. 6475.] 1912. Price 4s. 10d.

Return Relating to the Rates of Import Duties levied upon Articles Imported into the British Self-Governing Dominions, Crown Colonies, Possessions and Protectorates, so far as notified to the Board of Trade in October, 1912. [Cd. 6476.] 1912. Price 3s. 3d.

THESE two volumes, comprising between them about two thousand pages form a most valuable and complete work of reference on the subject dealt with. They are classified according to commodities, so that it is possible to compare at a glance the relative heights of the tariffs on similar products in a great variety of countries. The rates of duty are given in the English equivalents as well as in the foreign measures and currencies. It is intended to keep these returns up to date by re-issuing them from time to time in the future

Report of the Commissioners of Customs and Excise for 1911-12. [Cd. 6462.] Price 9½d. 1912.

THIS issue contains some useful statistical information relating to Old Age Pensions, and gives an account of the principal alterations effected by the new Old Age Pensions Act of 1911.

Statement showing how Deposits in Government Savings Banks in Certain Foreign Countries and British Possessions are Employed. [Cd. 6300.] Price 1d. 1912

Return Showing for every year from 1800 to 1910, inclusive, the Current Price of British Wheat per quarter, the Highest and lowest Import Duties Charged on Imported Wheat, and the Current Price of Bread in London. [H. of C. 339 of 1912.] Price ½d. 1912.

Statistical Abstract for the British Self-Governing Dominions, Crown Colonies, Possessions, and Protectorates, in each year from 1897 to 1911. (49th number.) [Cd. 6533.] 1912. Price 1s. 10d.

Final Report on the First Census of Production of the United Kingdom (1907). [Cd. 6320.] 1912. Price 7s. 6d.

THIS Report is dealt with in Professor Bowley's article above.

Report on Strikes and Lock-Outs and on Conciliation and Arbitration Boards in the United Kingdom in 1911, with Comparative Statistics for 1902-1910. [Cd. 6472.] 1912. Price 10d.

Report on Profit-Sharing and Labour Co-partnership in the United Kingdom. [Cd. 6496.] 1912. Price 8½d.

To be reviewed.

Report and Evidence of the Committee of Inquiry into Conditions of Employment in the Linen and other Making-up Trades of the North of Ireland. [Cd. 6509.] 1912. Price 1s. 9d.

To be reviewed.

CURRENT TOPICS.

THE attention of readers of Professor Irving Fisher's article on *A More Stable Gold Standard*, in the last issue of the JOURNAL, is called to an article contributed by Mr. Aneurin Williams to the ECONOMIC JOURNAL of June, 1892, under the title of *A "Fixed value of Bullion" Standard*. There is a fairly close resemblance between the proposals made by Mr. Williams twenty years ago and those for which Professor Fisher is now conducting so vigorous a campaign:—though Mr. Williams proposed to sell notes, not gold coins, at a varying price in terms of gold bullion. It is interesting also to recall the severe criticisms which were made, from the old-fashioned point of view, in the following number of the JOURNAL by Sir Robert Giffen on what he termed proposals for "fancy currencies"

THE principal British Index Numbers have now been published for 1912. Mr. Saucrbeck's Index Number has risen from 80 in 1911 to 85 in 1912, or 6·25 per cent.; the *Economist's* from 115·75 to 121·25, or 4·67 per cent., and the Board of Trade's from 109·3 to 115·0, or 5·2 per cent. The Board of Trade's Index Number for retail prices of food has risen from 109·3 to 114·9, or 5·1 per cent. Since 1900 the movements of these index numbers, all the numbers for 1900 being reduced to 100 for purposes of comparison, have been as follows:—

	Sauerbeck.	Economist. ¹	Bd. of Trade Wholesale.	Bd. of Trade Retail Food.
1900	100	100	100	100
1901	98	94	96.9	101.9
1902	92	91	96.9	101.6
1903	92	93	97.0	103.2
1904	98	95	98.3	104.3
1905	96	99	97.6	103.7
1906	103	104	100.5	103.2
1907	107	105	105.3	105.8
1908	97	100	102.8	108.4
1909	99	101	104.0	108.2
1910	104	106	108.7	109.9
1911	107	107	109.3	109.3
1912	113	112	115.0	114.9

It has been announced that Mr. Sauerbeck will no longer continue the compilation of his index number, but that it will appear in future in the *Statist*.

THE fluctuations in the percentages of unemployed in the period 1903-1912, according to the Board of Trade's returns relating to about 850,000 members of Trade Unions, have been as follows:—

1903	4.7	1908	7.8
1904	6.0	1909	7.7
1905	5.0	1910	4.7
1906	3.6	1911	3.0
1907	3.7	1912	3.2

But for the inflated figure for March, due to the coal dispute, the percentage for 1912 would have been a good deal lower than for 1911.

DR. JAMES BONAR, Deputy Master of the Ottawa Mint, recently delivered an interesting address in Canada on the roundabout way in which the huge loans, now being made by this country to Canada, are remitted. In fifteen years Canada's loans, for all purposes, chiefly from England, have amounted to about £400,000,000. In 1911 they were about £44,000,000, and 1912 £36,000,000. As a natural consequence of this huge import of capital, Canada has an adverse trade balance, amounting in 1911 to £35,000,000. But, Dr. Bonar pointed out, the balance of trade between Great Britain and Canada is in Canada's favour—by £5,500,000. The loans cannot be made, therefore, by the method of direct trading. We find, on the other hand, that between Canada and the United States there is a trade balance adverse to

¹ For the *Economist* index number the mean is taken between the index at the beginning and end of the year, i.e., the index for 1912 is the mean between the index for Jan. 1, 1912, and that for Jan. 1, 1913.

Canada to the amount of £35,000,000. Thus, in a sense, the English loan may be said to have financed the American trade.

A CORRESPONDENT writes : *An Investigation of the conditions of Life of the Finnish Workman*, by one of the women factory inspectors of Finland, has been lately published. Out of 953 expenditure books issued, to be filled in during fifty-two weeks, 380 were found to be perfect. Among other interesting results, the following average percentages were found to be spent on different forms of food : bread, 14·1 ; milk and cream, 9·9 ; butter, 7·8 ; cheese, 0·5 ; eggs, 0·8 ; meat (excluding sausages), 6·2 ; sausages, 1·4 ; fish, 1·8 ; potatoes, 2·4 ; vegetables, 0·7 ; fruit, 1 ; sugar, 4·3 ; coffee, 2·7 ; tea, 0·2 ; salt, vinegar, and spices, 0·3 ; mineral water and beer, 0·7 ; sundries, 0·6 ; making a total of 55·4 per cent. The proportionate expenditure on different articles as compared with that in other countries worked out as follows :—

		Finland.	Germany.	U S.	Denmark.	Sweden
Food	...	55 40	45 55	43 13	48 36	43 74
Clothing	..	11 80	12 64	12 95	16 14	10 91
Rent	..	12 40	17 96	18 12	13 29	19 04
Fuel and lighting	..	4 10	4 07	5 69	4 43	1 23
Sundries	..	16 30	19 78	20 11	17 78	22 05
Total		100	100	100	100	100

THE effect of a shortening of the working day on the employer's cost of production has recently been the subject of investigation in France. As is well known, the first attempt to fix a working-day in France by the State was the decree of September 9th, 1848, which provided for a 12-hours day ; and a 12 hours day remained the normal maximum until 1900, when 11 hours was fixed by statute. The law of 1900 provided, however, that two years after its promulgation (i.e., March 30th, 1902) the legal working-day should be reduced to 10½ hours ; and two years after that (i.e., on March 30th, 1904) to 10 hours. But there was never any very strict enforcement of the law. Wherever the conditions were such as to warrant a longer working day, means were provided which allowed of the prolongation. Even where the law has been tolerably well maintained, employers are not, however, complaining of the increased cost of production necessitated by the increased cost of labour. One result of the shortened working-day has been an increase in the system of piece-work, which is replacing to some extent the former conditions of time-work.

SIR THOMAS HENRY ELLIOTT, K.C.B., one of the honorary secretaries of the Royal Economic Society since its original foundation, has been appointed Deputy-Master and Comptroller of the Royal Mint. Sir Thomas Elliott, who is fifty-eight years of age, had been secretary of the Board of Agriculture since 1892. The very important extensions of the work of this office in recent years have all been carried out under his general direction, and the development of the Board of Agriculture into an important Department of State has chiefly taken place during his long reign there. The best wishes of members of the Royal Economic Society will follow Sir Thomas Elliott to his new position of greater ease and dignity; and apart from their personal feeling in regard to one who has so long served them, they will greatly welcome the fact that regard has been had to economic and administrative experience in appointing to an important office in relation to our currency, which has been used too often in the past as a reward for claims primarily political.

MR. A. L. BOWLEY has received the degree of Sc.D., and Mr. G. U. Yule the degree of M.A. *honoris causâ*, in the University of Cambridge.

It has been decided to establish a Faculty of Commerce in the University of Durham, with degrees of Bachelor and Master of Commerce.

RECENT PERIODICALS AND NEW BOOKS.

The Economic Review.

JANUARY, 1913. *The Economic Basis of Universal Peace—Cosmopolitan or International?* ARCHDEACON CUNNINGHAM. Read before the Economic Section of the British Association, 1912. *Juvenile Labour in Germany.* ERNEST LESSER. *Copartnership and Labour Unrest.* H. SANDERSON FURNISS.

• *Statistical Journal.*

DECEMBER, 1912. *Still Births in Relation to Infantile Mortality.* REGINALD DUDFIELD. A discussion of the report on this subject prepared by a Special Committee of the Society. The report is reprinted in this number. *Presidential Address to the Economic Science and Statistical Section of the British Association, 1912.* SIR H. H. CUNYNGHAME. An attempt to justify economics as a "positive" science. *The Nation's Food Supply.* R. H. REW. An estimate of the proportion produced at home. *Scottish Agricultural Changes.* MAJOR P. G. CRAIGIE.

JANUARY, 1913. *On the use of the Theory of Probabilities in Statistics relating to Society.* F. Y. EDGEWORTH. The Presidential Address. *The Rate of Interest on British and Foreign Investments.* R. A. LEHFELDT. An important contribution, to be followed by others, based on the study of a considerable mass of evidence. *The Consumption of Alcoholic Liquors in the United Kingdom.* A. D. WEBB.

Bankers' Magazine.

DECEMBER, 1912. *Bankers' Congress at Berlin.* W. C. DREHER. An account of the proceedings at the important congress held at Munich in September. *Presidential Address to Institute of Bankers.* LORD GOSCHEN. *British Gold Reserves and the Gold Question in India.* SIR EDWARD HOLDEN. An address delivered to the Manchester Statistical Society.

JANUARY, 1913. *Indian Currency and Finance.* R. MURRAY. Denies the existence of the alleged clamour for a gold currency. *The Price of Consols.* A. H. GIBSON. Mr. Gibson brings up to date his empirical studies of this subject. *Stock Exchange Values for the past Month and Year.*

FEBRUARY, 1913. *Credit and Trade.* Statistics, compiled by Mr. Seyd and Kemp's Mercantile Gazette, of Commercial Failures in 1912. *London Bankers' Clearings in 1912.* Full statistics from 1868 to 1912.

Journal of the Institute of Bankers.

- JANUARY, 1913. *The Foreign Exchanges. Lectures I. and II.* HARTLEY WITHERS. To be published shortly in book form.
The Indian Financial Management. W. F. SPALDING. A defence of the policy of the India Office against Mr. Webb's criticisms.

The Sociological Review.

- JANUARY, 1913. *Fatigue and Efficiency.* B. L. HUTCHINS. A review of the facts in the light of some recent works.

The Women's Industrial News.

- JANUARY, 1913. *Truck Fines and Deductions.* B. L. HUTCHINS. An historical study.

The Clare Market Review.

- FEBRUARY, 1913. *Some Branches of the British Library of Political Science. V. The W. M. Acworth Collection of Transport Literature.* E. CLEVELAND STEVENS.

The Socialist Review.

- FEBRUARY, 1913. *The Nationalisation of Coal Mines.* F. BROOKSBANK. "A valuation of the coal pits having been made (on a 9 per cent. basis), the coal owners must be compelled to exchange their share-script for Government bonds bearing interest at 3 per cent." This would leave a profit balance to the State of £10,500,000 annually for sinking fund, etc.

Quarterly Journal of Economics (Boston).

- NOVEMBER, 1912. *Agricultural Development in the United States, 1900-1910.* J. L. COULTER. *Ethical and Economic Elements in Public Service Valuation.* J. E. ALLISON. A discussion of the principles on which the relations can be regulated between the owners of a public utility and the consumers of its product.
Social Denmark. P. SCHOU. On Co-operation, Trade Unions, Insurance, etc., prepared in the Danish Legation at Washington.
Specialisation in the Woollen and Worsted Industry. L. D. H. WELD. A general discussion, not merely with reference to U.S.A. *Fisher's Theory of Crises: A Criticism.* M. T. ENGLAND. Criticises Professor Fisher's theory that crises are due to the interest rate (measured in money) not rising fast enough in comparison with the rise of prices. *The Origin of the National Customs-Revenue of England.* N. S. B. GRAS. Based on original authorities. *Frankfort-on-the-Main: A Study in Prussian Commercial Finance.* I. ANNA YOUNGMAN. An account of the very interesting experiments made there.

Political Science Quarterly (New York).

- DECEMBER, 1912. *Recent Tax Reforms Abroad. II.* E. R. A. SELIGMAN. Deals with Germany and Australasia. *Marxism versus Socialism. VII.* V. G. SINKHOVITCH. A continuation of articles which have been appearing since 1908. *Russian-American Commercial Relations.* J. V. HOGAN.

Annals of American Academy (Philadelphia).

NOVEMBER, 1912. *The Outlook for Industrial Peace*. A series of articles by economists and business men.

The Journal of Political Economy (Chicago).

NOVEMBER, 1912. *The Banking Question in Congress*. H. PARKER WILLIS. *What is the Future of American Cotton?* J. V. HOGAN. *The Economic Basis of the Fight for the Closed Shop*. H. T. LEWIS. A discussion of the grounds of the claim for the exclusion of non-union labour.

DECEMBER, 1912. *The Economic Theory of a Legal Minimum Wage*. SIDNEY WEBB. "The economist has to point out to the statesman that the adoption of a legal Minimum Wage would in no way increase the amount of maintenance which has to be provided by the community, in one form or another, for persons incapable of producing their own keep. It would, on the contrary, tend steadily to reduce it. . . ." *Minimum Wage Laws*. FLORENCE KELLEY. In the United States.

JANUARY, 1913. *The Aim and Content of the Undergraduate Economics Curriculum*. A. B. WOLFE. How are the aims of culture and formal discipline and of vocational training to be reconciled? *Some Economic Aspects of Immigration before 1870*. H. T. W. PAGE. Continued from the December number. *Early Canal Traffic and Railroad Competition in Ohio*. E. L. BOGART.

Bulletin de la Statistique Générale de la France (Paris).

OCTOBER, 1912. *L'émigration des peuples jaunes*. Pp. 34. H. BUNLE.

Revue d'Economie Politique (Paris).

NOVEMBER-DECEMBER, 1912. *Le Bassin de Briey et la politique de ses entreprises sidérurgiques ou minières*. M. VIGNES. Continued in the next number. *Le Brésil et l'industrie du Caoutchouc*. R. PICARD. *Le Crédit ouvrier par l'assurance*. P. NABHOLZ. A theoretical study. *Relation entre les variations annuelles du chômage, des grèves et des prix*. C. RIST. With reference to a recent contribution by M. Lucien March to the *Bulletin de la statistique générale de la France*. Prof. Rist concludes that "le chômage volontaire est d'autant plus fort que le chômage involontaire est plus faible, et réciproquement." Between prices on the one hand and strikes and unemployment on the other he can discover no marked statistical connection. M. March replies briefly in the next number.

JANUARY-FEBRUARY, 1913. *La verrerie ouvrière d'Albi*. B. LAVERGNE. *Le renouvellement de la convention de Bruxelles et les conditions actuelles de la production sucrière*. J. HITIER. *L'institut international d'agriculture*. E. BOURGIN.

Journal des Économistes (Paris).

DECEMBER, 1912. *La Réglementation du travail des employés*. YVES GUYOT. *Friedrich List et la polémique autour de ses idées en 1912*. ARTHUR RAFFALOVICH. *Le Rapport de M. Dalimier*

et la discussion à la Chambre sur le budget des Postes et des Télégraphes. CH. MACLÈRE.

JANUARY, 1918. *Le Marché financier en 1912.* ARTHUR RAFFALOVICH. *L'Ecole autrichienne d'économie politique.* FEILBOGEN. Eighth article.

L'Économiste Français (Paris).

JANUARY 11, 18 AND 25, 1918. *Les Placements financiers.* PAUL LEROY-BEAULIEU. A study, in three articles, of the change in prices of the leading French securities during 1912.

Revue Économique Internationale (Brussels).

NOVEMBER, 1912. *L'Albanie économique et politique à la veille de la guerre.* A. BALDACCI. *Évolution des Chemins de Fer américains.* F. W. POWELL. *Le Commerce extérieur des États-Unis.* P. E. SMETS. Chiefly a discussion of the balance of trade. *Les Emprunts chinois.* E. CAMMAERTS.

DECEMBER, 1912. *La Bourse d'Alexandrie et le marché des cotons égyptiens.* L. POLIER. *La Culture du coton dans L'Asie Centrale Russe.* M. LAMINCK. *Le Coton oriental et méditerranéen.* Y. M. GOBLET.

JANUARY, 1913. Articles on the Panama Canal of considerable interest by three distinguished American writers. *Histoire du Canal de Panama.* WILLIAM H. BURR. *Le Canal de Panama au point de vue économique.* EMORY R. JOHNSON. *Le Canal de Panama au point de vue militaire.* ADMIRAL MAHAN.

Archiv für Sozialwissenschaft und Sozialpolitik (Tübingen).

NOVEMBER, 1912. *Alte und neue Einwände gegen den historischen Materialismus.* ACHILLE LORIA. *Verschmelzung und gegenseitige Penetration der Rassen und Nationalitäten: Statistische Untersuchungen.* F. SAVORGNAN. An attempt to determine a coefficient of "homogamy" between races, colours, nationalities, etc. The illustrative statistics are mainly drawn from the Argentine, Budapest, and Boston. *Die Arbeitsteilung im geistigen Leben: Eine Untersuchung ihrer hauptsächlichlichen Formen, Gesetze und Triebkräfte.* W. HELLPACH. This study of the principle of division of labour is to be continued. *Soziale Probleme des Dienstvertrages. Der Dienstvertrag im Bürgerlichen Gesetzbuch für das Deutsche Reich und im neuen schweizerischen Obligationenrecht.* Pp. 74. E. ADLER. *Die gegenwärtige Lage der Arbeiter in Japan und das neue Fabrikgesetz.* K. KUWATA.

Jahrbücher für Nationökonomie und Statistik (Jena).

JANUARY, 1913. *Zur Theorie der Statistik.* HELLMUTH WOLFF. A review of various schools of thought on the philosophy of statistical theory.

Annalen für Soziale Politik und Gesetzgebung (Berlin).

PARTS III. AND IV., 1912. *Der Ausbau der Erbschaftssteuer als Besitzsteuer für das Reich.* H. WEISSENBORN. *Geburten-*

rückgang und Sozialpolitik. O. LANDSBERG. *Bergarbeiterschutz im Preussen und Oesterreich.* F. BUSSON. *Das Lohnämtergesetz.* CONSTANCE SMITH. Deals with the British Act of 1909 relating to Trade Boards and Sweated Industries. *Zur jüngsten Entwicklung der Arbeitgeber-Verbände.* GERHARD KESSLER.

Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung (Vienna).

PART VI., 1912. *Untersuchungen über Auslese und Anpassung der Arbeiter.* RICHARD SORER.

Scientia (Bologna).

JANUARY, 1913. *The Sun-Spots.* E. W. MAUNDER. A summary of the latest views of the astronomers on the periodicity of sun-spots.

Giornale degli Economisti (Rome).

SEPTEMBER, 1912. *Il primo annuario internazionale di Statistica Agraria.* U. RICCÌ. An introductory description of the annual which the International Institute of Agriculture has begun to publish. *La distribuzione della ricchezza.* L. AMOROSO. A paper read to the economico-statistical section of the Congress of Mathematicians last year.

OCTOBER. *Le Comunicazioni ferroviarie in Cina.* U. BENEDETTI. The development of railways in China augurs well for her economic progress. *Monografia di famiglia.* G. BAGLIO. A Sicilian family budget.

NOVEMBER-DECEMBER. *L'azione recente dell' oro sui prezzi generali delle merci.* R. BENINI. A severe criticism of Yves Guyot leads to a restatement of monetary principles purporting to form a bridge between the defenders and assailants of the quantity theory. *Interferenze e gettito delle imposte sugli incrementi di valore.* B. GRIZIOTTI.

JANUARY. *Problemi del Tesoro e della circolazione.* G. DEL VECCHIO. *Gli odierni aspetti dell' Economia agraria.* C. DI NOLA. Interesting statistics of the world's railways by G. MORTARA, and a study on the pure science of finance by B. GRIZIOTTI are buried in the small print which now, unfortunately, conceals the greater part of the *Giornale*.

La Riforma Sociale (Turin).

NOVEMBER, 1912. Questions of definition and taxation are discussed exhaustively, in connexion with Prof. Fisher's book on *Capital and Income* and Prof. Seligman's *Income-tax* by GIUSEPPE PRATO.

DECEMBER. The polemic against protected iron manufacturers is continued by L. EINAUDI.

JANUARY, 1913. The concept of taxable income, with reference to Prof. Einaudi's recent work, is the subject of an article by ACHILLE LORIA. There is also an instructive description of the failure of a Socialist business ("cantina comunale") in an Italian locality.

NEW BOOKS

English.

ASHLEY (ANNIE). *The Social Policy of Bismarck: A Critical Study, with a Comparison of German and English Insurance Legislation. With a Preface by Gustav von Schmoller.* London: Longmans, Green. 1912. Pp. ix + 95. 2s. net.

[Birmingham Studies in Social Economics. III. To be reviewed.]

ASHLEY (W. J.). *Gold and Prices.* London: Longmans, Green. 1912. Pp. 32. 1s. net.

[Reprinted from the *Pall Mall Gazette*. Noticed in the *ECONOMIC JOURNAL*, June, 1912, p. 358.]

BAIRD (W.). *The One Pound Note: Its History, Place, and Power in Scotland and its adaptability for England. (Third edition revised and brought down to date.)* Edinburgh: Baxendine. 1912. Pp. 72. 2s. net.

BOAG (GEORGE L.). *Manual of Railway Statistics.* London: Railway Gazette. 1912. Pp. 185. 4s. net.

[By the Assistant Manager of the Great Southern of Spain Railway, who has also had railway experience in England, the Argentine, and Southern Nigeria. A discussion of principles followed by appendices of practical material.]

CARLYLE (A. J.). *Wages. (Christian Social Union Handbooks.)* London: Mowbray. 1912. Pp. 125. 2s. net.

CHATTERTON (ALFRED). *Industrial Evolution in India.* Madras: The "Hindu" Office. 1912. Pp. 369.

[This volume, by the Special Adviser for Industries and Commerce in Mysore, is a reprint of a number of articles on Indian industrial and economic questions. To be reviewed.]

DOBSON (G.), translated by. *Company Fire Insurance in Russia, 1827-1910.* St. Petersburg. 1912. Pp. 145. Large 4to., with diagrams.

[Published by the Tariff Committee of Russian Insurance Companies.]

HENRY (ROBERT). *Who Pays? The Real Incidence of Taxation.* London: George Allen. 1912. Pp. vii + 76. 2s. 6d.

[With some eccentric diagrams.]

LEAKE (P. D.). *The Use and Misuse of the Sinking Fund.* London: Gee & Co. 1912. Pp. 19.

[A paper read before the Chartered Accountant Students' Society of London, dealing in part with the proper use of the sinking fund by municipal bodies.]

PRATT (E. A.). *Agricultural Organisation: Its Rise, Principles, and Practice abroad and at home.* London: P. S. King. 1912. Pp. 272. 3s. 6d. net.

PROTHERO (R. E.). *English Farming Past and Present.* London: Longmans, Green. 1912. Pp. xiii + 504. 12s. 6d. net.

[To be reviewed.]

SEATON (R. C.). *Power v. Plenty: Some Thoughts on the Tariff Question.* London: P. S. King. 1912. Pp. 164. 2s. 6d. net.

[Tariff Reform "represents the policy of Productive power--a policy whose aim it is to develop all the resources of a State with a view to national 'independence' as opposed to national 'interdependence.'" The treatment of the subject is common-place.]

SHADWELL (ARTHUR), Edited by. *Nelson's Encyclopædia of Industrialism*. London: Thomas Nelson. 1918. Pp. 543. 1s. net.

[The editor of this encyclopædia has followed the wise course of including a comparatively small number of separate articles, but each of substantial length and by a distinguished contributor. For example, there are articles on *Capital* and *Cost of Living* by Prof. Ashley, *Wages* by Mr. Bowley, *Employers' Unions* by Sir Hugh Bell, *Methods of Industrial Peace* by Prof. Chapman, *Factory Law* by Mr. J. H. Greenwood, *Hours of Labour* by Mr. Ramsay Macdonald, *Strikes* by Prof. Nicholson, *Labour and Politics* by Mr. Philip Snowden. To be reviewed.]

THOMSON (MARY HORNER). *Environment and Efficiency; A Study in the Records of Industrial Schools and Orphanages*. With a Preface by J. Rendel Harris. London: Longmans, Green. 1912. Pp. viii+100. 2s. net.

[Birmingham Studies in Social Economics and Adjacent Fields. I. "The Studies in this Series," which is under the editorship of Prof. W. J. Ashley, "are the outcome of the inquiries of students working for the Social Study Higher Diploma or for the Higher Degrees of the University of Birmingham." To be reviewed.]

Trades for London Boys and How to Enter Them. Revised with additions. London: Longmans, Green. 1912. Pp. 204. 1s. net.

[Compiled by the Apprenticeship and Skilled Employment Association. A valuable handbook of practical details in regard to a great number of trades.]

WALSH (ROBERT). *The Principles of Industrial Economy*, illustrated by an inquiry into the comparative benefits conferred on the State and on the Community by Free Trade and Fair Trade or Moderate Protection. London: P. S. King. 1912. Pp. xiv+257. 6s. net.

[An advocacy of Protection. The author contends that, if all the wheat required by the United Kingdom were grown within the country, this would lead to an additional creation of wealth amounting annually to £64,922,946.]

WATSON (ALFRED WILLIAM). *Friendly Society Finance considered in its actuarial aspect*. London. C. & E. Layton. 1912. Pp. v+132.

[Lectures delivered at the Institute of Actuaries, 1911-12.]

WINDER (PHYLLIS D.). *The Public Feeding of Elementary School Children: A Review of the General Situation, and an Inquiry into Birmingham experience*. With a Preface by Norman Chamberlain. London: Longmans, Green. 1913. Pp. ix+84. 2s. net.

[Birmingham Studies in Social Economics. II. To be reviewed.]

American.

COMAN (KATHARINI). *Economic Beginnings of the Far West: How we won the land beyond the Mississippi*. Vol. I. *Explorers and Colonisers*. Vol. II. *American Settlers*. New York: The Macmillan Co. 1912. Pp. xix+418+ix+450. 17s. net.

[A readable rather than a learned work.]

FARNAM (HENRY W.). *Bibliography of the Department of Economics and Sociology of the Carnegie Institution of Washington*. 1912. Pp. 17.

[The Department has been engaged since 1903 on organising work entitled "Contributions to American Economic History." 238 monographs or parts of monographs have been prepared, 108 of which are unpublished. This is a complete list of the titles and authors of these monographs.]

MOULTON (HAROLD G.). *Waterways versus Railways*. Boston: Houghton Mifflin. 1912. Pp. xviii+468. \$2 net.

[Reviewed above.]

PATTEN (SIMON N.). *The Reconstruction of Economic Theory*. Philadelphia: American Academy. 1912. Pp. 99.

[Supplement to *The Annals of the American Academy of Political and Social Science*, November, 1912. The thesis of this very interesting essay is not easily summarised. To be reviewed.]

Railway Economics. Chicago: University Press. 1912. Pp. 446. 12s. net.

[A collective catalogue of books in fourteen American libraries, prepared by the Bureau of Railway Economics, Washington, D.C.]

RIPLEY (WILLIAM Z.). *Railroads: Rates and Regulations*. London: Longmans, Green. 1913. Pp. xviii + 659. 14s. net.

[An important and comprehensive treatise, to be followed shortly by a companion volume on *Railways: Finance and Organization*. To be reviewed.]

STEVENS (WILLIAM S.), Edited by. *Industrial Combinations and Trusts*. New York: The Macmillan Co. 1913. Pp. xiv + 593. 8s. 6d. net.

[A collection of first-hand materials, which aims at putting within the reach of students the original documents relating to "Pooling, Trust, Factors, and International Agreements; court decisions and laws against Trusts; Trust methods of fixing prices, eliminating competition, and restraining trade; the dissolution plans of dissolved Trusts; lease and license agreements of representative patent monopolies; and the views of eminent business and professional men." To be reviewed.]

UPSON (LENT DAYTON). *Sources of Municipal Revenue in Illinois*. Illinois: The University. 1912. Pp. 126. 75 cents.

[*University of Illinois Studies in the Social Sciences*.]

French.

BELLOM (MAURICE). *La Définition Légale del 'Invalidité en matière d'Assurance Sociale: Recherche d'une formule*. Paris: Rousseau. 1912. Pp. 28.

[Based on a comparison of the practice of different countries.]

FISCHIEL (MARCEL-MAURICE). *Le Thaler de Marie-Thérèse: Étude de Sociologie et d'Histoire Économique*. Paris: Giard & Brière. 1912.. Pp. xxi + 208. Fr. 5.

[To be reviewed.]

GUYOT (YVES). *La Gestion par l'Etat et les municipalités*. Paris: Félix Alcan. 1913. Pp. viii + 437. Fr. 3.50.

[Reviewed above.]

MAHAIM (ERNEST). *Le Droit international ouvrier*. Paris: Sirey. 1913. Pp. 385. Fr. 6.

[Lectures delivered before the Faculty of Law in the University of Paris. To be reviewed.]

MATAJA (VICTOR). *La Réclame dans ses rapports avec les Affaires et le Public*. Paris: Polmoss. 1912. Pp. 77. Fr. 2.

[Translated from the German. Reviewed above.]

NOGARO (BERTRAND). *Éléments d'Économie politique: Production—Circulation*. Paris: Giard. 1913. Pp. vii + 388. Fr. 6.

[A text book, primarily intended for French law students in their first and second years.]

RAYNAUD (B.). *Vers le Salaire Minimum: Étude d'économie et de législation industrielles.* Paris: Recueil Sirey. 1913. Pp. xi + 518. Fr. 12.50.

[*Bibliothèque d'Economie politique et de Sociologie VI.* An exhaustive treatise on the subject. To be reviewed.]

German.

BEER (M.). *Geschichte des Sozialismus in England.* Stuttgart: J. H. W. Dietz. 1913. Pp. xii + 512.

[First part (pp. 222), 1750-1824; second part (pp. 196) 1825-1854; third part (pp. 83) 1855-1912. To be reviewed.]

HERNER (HEINRICH). *Hafenabgaben und Schiffs-vermessung: ein Kritischer Beitrag zur Würdigung ihrer technischen, wirtschaftlichen und statistischen Bedeutung.* Jena: Gustav Fischer. 1912. Pp. vi + 128. M. 8.

[*Probleme der Weltwirtschaft XI.* A technical, rather than economic, discussion of the dimensions of ships and their regulation.]

HERRMANN (ELISE). *Auslese und Anpassung der Arbeiterschaft in der Wollhutindustrie.* Munich: Duncker & Humblot. 1912. Pp. 63. M. 1.80.

[Published in the *Schriften des Vereins für Sozialpolitik*, being a further installment of their *Untersuchungen über Auslese und Anpassung (Berufswahl und Berufsschicksal) der Arbeiter in den verschiedenen Zweigen der Grossindustrie.*]

KÄHLER (WILHELM). *Die Bildung von Industriebezirken und ihre Probleme.* Leipzig: Teubner. 1912. Pp. 27. M. 0.80.

[From the *Vorträge der Gehe-Stiftung zu Dresden.*]

KUCZYNSKI (R.). *Arbeitslohn und Arbeitszeit in Europa und Amerika, 1870-1909.* Berlin: Julius Springer. 1913. Pp. vi + 817. M. 24.

[A huge collection of facts and figures relating to wages and hours of labour in a great number of trades. To be reviewed.]

JACOBI (DR. DOROTHEA). *Die gemeinnützige Bautätigkeit in Deutschland, ihre kulturelle Bedeutung und die Grenzen ihrer Wirksamkeit.* Munich: Duncker & Humblot. 1913. Pp. x + 152. M. 4.

[Schmoller's *Staats- und sozialwissenschaftliche Forschungen*, Vol. 167.]

LENZ (PAUL). *Die Konzentration im Seeschiffahrtsgewerbe.* Jena: G. Fischer. 1913. Pp. viii + 142. M. 4.

[On capitalisation, monopoly, and competition, the tendency to concentration, etc., in the shipping trade. To be reviewed.]

MANES (ALFRED). *Versicherungswesen.* Leipzig: B. G. Teubner. 1913. Pp. xiv + 485. M. 11.

Second edition, revised and enlarged of Professor Manes' treatise on the origin, meaning, organisation, and technique of Insurance, both in general and in numerous particular forms. The first edition was published in 1905 and was reviewed in the *Economic Journal*, Vol. xv, p. 418. To be reviewed.]

PASSOW (RICHARD). *Materialien für das wirtschaftswissenschaftliche Studium. III. Warenbörsen.* Leipzig: Teubner. 1912. Pp. v + 152. M. 2.50.

[A collection of material relating to the regulations of the German produce exchanges.]

POPPER-LYNKEUS (JOSEF). Die allgemeine Nährpflicht als Lösung der sozialen Frage, eingehend bearbeitet und statistisch durchgerechnet: mit einem Nachweis der theoretischen und praktischen Wertlosigkeit der Wirtschaftslehre. Dresden: Carl Reissner. 1912. Pp. xvi+813. M. 17.

[Intended as the programme of a practical policy. To be reviewed.]

PREYER (W. D.). Die Arbeits- und Pachtgenossenschaften Italiens. Jena: G. Fischer. 1913. Pp. 228. M. 6.

[To be reviewed].

ROSS (LISA). Weibliche Dienstboten und Dienstbotenhaltung in England. Tübingen: J. C. B. Mohr. 1912. Pp. viii+99. M. 3.

[*Archiv für Sozialwissenschaft und Sozialpolitik*. Supplement VIII. To be reviewed.]

SCHMOLLER (GUSTAV). Charakterbilder. Munich: Duncker & Humblot. 1913. Pp. vii+302. M. 7.

[This is a collection of character sketches of distinguished economists and German statesmen which Professor Schmoller has written from time to time over a considerable number of years. After Easter of this year Professor Schmoller, at the age of 75, is to retire from the active duties of lecturing and he offers this volume, primarily to his friends and pupils, as in the nature of a farewell gift. To be reviewed.]

SELLA (EMANUEL). Der Wandel des Besitzes: Versuch einer Theorie des Reichtums als Organismus. Munich: Duncker & Humblot. 1912. Pp. iv+98. M. 2.50.

[Translated from the Italian.]

SOMBART (WERNER). Studien zur Entwicklungsgeschichte des modernen Kapitalismus: Vol. I. Luxus und Kapitalismus. Munich: Duncker & Humblot. 1913. Pp. viii+220. M. 6. Vol. II. Krieg und Kapitalismus. Munich: Duncker & Humblot. 1913. Pp. viii+232. M. 6.

[These are the first two instalments of the new edition of Professor Sombart's *Moderne Kapitalismus*. To be reviewed.]

STAMMHAMMER (JOSEF). Bibliographie der Social-Politik: Band II. enthaltend die Literatur von 1895-1911 und Ergänzungen zu Band I. Jena: Gustav Fischer. 1912. Pp. vi+881. M. 30.

[This enormous compilation—the above volume must contain more than 20,000 titles—brings up to date this first volume, which was published in 1896. It deals chiefly with labour and with social questions connected with labour, and does not attempt to cover the whole field of economics. The literature of all countries is classified, and the method of classification and the cross-references seem admirably adapted to make it as useful as possible to a student. Articles in magazines and journals are fully catalogued. The volume should form a valuable work of reference for libraries.]

ŽIŽEK (FRANZ). Soziologie und Statistik. Munich: Duncker & Humblot. 1912. Pp. 47. M. 1.50.

Italian.

CARONNA (F.). La Teoria della erenzione tributaria dei redditi minimi. Palermo: Reber. 1913.

FANNO (MARCO). Le Banche e Il Mercato Monetario. Rome: Athenaeum. 1913. Pp. 395. L. 8.

GINI (PROF. CORRADO). Contributi statistici ai Problemi dell'Eugenica. Rome. 1912. Pp. 112.

[Reprinted from the *Rivista Italiana di Sociologia*.]

GRAZIANI (A.). *Principii di Economia Commerciale*. Naples: Alvano. 1913.

SÈGRE (ARTURO). *Manuale di Storia del Commercio*. Vol. I. *Dalle Origini alla Rivoluzione Francese*. Turin: S. Lattes. 1913. Pp. 459.

TENERELLI (F. G.). *Le Finanze Comunali*. Milan: Società Editrice Libreria. 1913. Pp. 450.

[A study of the income and expenditure of Italian Communes.]

Statistique démographique des grandes villes du monde pendant les années 1880 1909. Part II. Amsterdam: J. Müller. 1912. Pp. 115

[Published by the *Bureau municipal de Statistique d'Amsterdam*. Part I dealt with the population, birth rate, death rate, and infantile mortality in European towns. This part deals with twelve towns in Asia, three in Africa, nine in America, and three in Australia.]

Catalogue de l'Institut Nobel Norvégien. I. *Littérature Pacifiste*. Kristiania. (London: Williams & Norgate.) 1912. Pp. 238. 10s.

WOHLIN (NILS). *Den Svenska Jordstyckningspolitiken i de 18: de och 19: de Århundradena*. Stockholm: P. A. Norstedt. 1912. Pp. xiii + 852.

THE ECONOMIC JOURNAL

JUNE, 1913

COMPARATIVE ECONOMIC HISTORY AND THE ENGLISH LANDLORD.¹

It is now some thirty years since I began to interest myself in economic history, under the converging influence of three very different men—Stubbs, Toynbee, and Schmoller. And, looking back, I am conscious of a great change in the academic atmosphere. I should not like to speak for Germany or France or Russia, or the other countries of the European continent; but for England and America this much can safely be said: that the study of specifically economic history is no longer an individual eccentricity, calling almost for apology; it is now a recognised and respectable scholarly pursuit. And this is evidenced by a circumstance the very mention of which may cause our foreign friends to smile, but which is quite significant in British circumstances: economic history has been given a place in our university examinations. At the Universities of Cambridge and London, and at most of the newer Universities, examination papers are every year set in the subject, and some hundreds of students do their best to answer them. Consequently there is now something like an academic career opening before scholars who devote themselves to this particular study.

But there is another and perhaps as significant a sign of the times, about which our foreign friends may like to be informed. During the last few years there has come into existence in Great Britain an extensive organisation called the Workers' Educational Association. It is an association of trade unions, co-operative societies, adult schools, and other working-class bodies, in alliance with the universities, to provide for working men and women an education worthy of citizens. The expenses

¹ Presidential Address at the Economic History Section of the International Congress of Historical Studies in London, April 9, 1913.

are met, in large measure, by grants from the Board of Education, *i.e.*, from the general taxation of the country. Now it is a remarkable fact that the subject most generally studied by these classes of working people is Economic History. Out of some 102 systematic courses of lectures and tutorial classes in the session 1911-12, almost half, *viz.*, 49, were on Economic History. Economics or Economic Theory came far behind, with 29; and no other subject brought together more than four or five classes. In many cases the classes proceed, in a subsequent year, from economic history to economic theory; in others they advance from a more general to a more intensive study of economic history itself, or go on to some other aspect of history—for instance, the constitutional.

This noteworthy state of affairs would seem to have arisen, at the outset, partly from accident, and partly from the free choice of the working men responsible for the first "tutorial classes." What these working men wanted was, naturally; some light on the pressing social problems of the day; but they felt, as one of them has told me, that to approach them historically would give "a sense of proportion and perspective," and would make it easier to tackle more controversial questions afterwards in an unpartisan spirit. The example thus set has since been followed, simply because the policy has justified itself in experience. It would seem, also, that by many working men economic history has been welcomed not only as a preparation for political economy, but also for its own sake: because it seems to come nearer to answering the questions in which they are interested than the particular kind of economic theory that is presented to them by most English economists.

The serious study of economic questions, whether historically or not, by the *élite* of the working classes is bound to have large consequences. So far the Workers' Educational Association has been able without difficulty to maintain an independent and unpartisan position. In this respect it has been more fortunate than the only contemporary working-class educational movement with which, for extent, it can be compared, namely, the network of popular lecture courses organised in Germany by the Socialist party. The educational work of the German Socialist party—and by that I mean not so much its propagandist activity, which naturally stands in the forefront, as its zeal to awaken working men and women to intellectual interests generally, whether through natural science or art or history—this work has hardly attracted as much attention as it deserves. Yet party zeal is

hardly separable from party narrowness; and the Workers' Educational Association gains something from its freedom from entangling connections.

All this increasing attention to economic history, alike in working class and in undergraduate circles, makes it imperative there should go on, side by side with it, the keenest and most critical scientific research in every part of the field. The danger of over-hasty formulation, the danger of undue emphasis on particular facts, are certainly not less in these days of social politics than they were in the days when ecclesiastical history, or in those later days when constitutional history, led the way in becoming a subject for specialised teaching. *Quis custodiet*, it may be objected, *custodes ipsos*? Professors themselves have their bias and their passions, the more dangerous because they are commonly unconscious. We greatly deceive ourselves if we suppose that historical, political, legal, and economic subjects attract attention, even in our calmest seats of learning, merely on account of, or in proportion to, their scientific sociological interest; that the typical scholar is objective and detached from contemporary motives. As a matter of fact, the bulk of the important work done at the universities in these fields has always been inspired by interest in the problems of the day; and "tendency" is only a matter of degree. So far as a remedy is possible, it is to be sought in a consciousness of the danger. The way to overcome bias is to realise what our own individual bias is likely to be, and to suspect ourselves accordingly. Help also will be given by a multiplication of investigators, so that no dubious conclusion shall long remain uncriticised by a brother scholar of differing "tendency." And if the critic comes from another nationality, there is even more chance that he will see the common subject-matter with fresher eyes, and eyes that, if prejudiced at all, are prejudiced in a different direction.

This thought brings me to a theme on which it may not be inappropriate that I should dwell for a few minutes on this occasion: the strikingly international character of recent investigation in this particular subject. It is surprising how large a part of the best work—certainly this is true of English economic history—has proceeded from foreign scholars. This has been the result of their essentially practical purpose. They have turned with interest to the social history of a land not their own because it preceded their country in its development, and might therefore indicate dangers to avoid or precedents to follow. Thus Marx and Brentano and Held and Schufze-Gävernitz and Levy

have examined the industrial history of England, because England preceded Germany in passing through "the Industrial Revolution." And while Germans have led the way in the scrutiny of manufacturing development, Russian scholars, in more recent days, have thrown themselves with eagerness upon agrarian history. I need but mention such names as Karéiew and Loutchisky and Kovalevsky for their French inquiries, Vinogradoff and Savine for their English. The obvious reason is that Russia has been confronted of late with the prospect of a vast agrarian transformation, and her patriotic scholars crave for every possible glimmer of light upon their path that the experience of other countries can be made to furnish. That they may find such light we must all hope; but, in any case, their keen curiosity is of great service to the history of the countries they turn their attention to.

I am aware I am entering upon a somewhat perilous topic if I attempt now to illustrate the international character of our study from a subject that engages just now a good deal of attention in this country, viz., the ownership and tenure of land. I realise that the whole group of problems which it includes is still full of obscurities; but it may be possible to state the present position of historical investigation in a way to command the assent of scholars. In what I shall have to say I shall have England chiefly in mind. But it is certain that in the Middle Ages there was a substantial similarity of social conditions over a large part of Western Europe; and it is from that fact, as we shall see, that we get sometimes the greatest assistance and sometimes the greatest hindrance in our inquiries.

It is evident, to begin with, that the historian of English land has no longer the same clear and well-defined starting-place as his predecessor set out from, forty years ago. Then the historian could assume that he knew with what conditions the development began at the outset of English history, as surely as he knew in what conditions it has ended; his task was to fill in the intermediate stages. What that starting-place was it is hardly necessary that I should give time to describing: it was "the farmer commonwealths," displayed with all the emotion of admiration in the opening pages of Green, and clearly discernible beneath the cautious phrases of Stubbs. These occupied the centre of the picture: differences of rank and wealth and status all fell into a dim and easily-forgotten background; and the problems for the historian were conceived to be these: how did the freeman sink

into serfdom; how did landowning communities fall into subjection to manorial lords?

Now it is significant that nothing of all this had suggested itself to English historians so long as they confined themselves to English evidence; no trace of it is to be found, for instance, in the pages of Hallam. It was imported into English history by Kemble, as a result of his German studies: he assumed, with entire good faith, that what was apparently proved for Teutons at home must have existed among Teutonic peoples in Britain, and he looked round for English evidence which would fit into the construction. It was imported again, and with more authority, by Stubbs. No one can look at the footnotes of his earlier chapters without seeing that he builds on the foundations assumed to be laid for Germany by Maurer and Waitz.

The reputation of German scholarship was deservedly so high that, so long as German historians were unanimous, no criticism from outside carried much weight. And for a time the Maurer-Waitz tradition went on establishing itself only the more imposingly, in the economic histories of Inama and Lamprecht, and in the legal history of Brunner. The acute criticism by Fustel of the whole range of Roman, Merovingian, and Carolingian evidence, the essays of Denman Ross, the realistic treatment of the English material by Seebohm, were alike waived on one side. Instead of asking how room was to be found in the picture for the facts called attention to by Fustel and Seebohm, it was common to characterise these scholars summarily as isolated advocates of a rival theory—the theory that the manor grew out of the Roman country estate. And the more we realised from Hanssen and Meitzen and from Seebohm himself the system of cultivation in the Middle Ages, with its open fields and intermixed holdings and rotation of crops and common pasture, the more obvious it seemed that the Roman *villa* could hardly by itself account for *Grundherrschaft*, *seigneurie*, and *manor*.

No fresh advance was possible until a new movement took place among German scholars themselves. It is notorious that since 1896 such a movement has made its appearance. I need but mention the names of Hildebrand and Wittich and Knapp. These writers have compelled a reconsideration of the accepted interpretation of Tacitus and the Barbarian laws and the early land charters and the capitularies. Moreover, it is no longer plausible to say that the Waitz-Brunner interpretation of the period A.D. 400–800 must be correct, inasmuch as it fits in with their interpretation of the period A.D. 800–1000; since Dopsch is now

showing the extreme insecurity of some of the apparently most firmly established propositions even as to Carolingian institutions.

The authors I have just named are by no means as yet in possession of the field; the old positions are still being defended; and we must certainly not be in a hurry to proclaim any large new generalisations. If I venture to sum up what seem to me the conclusions suggested so far, it is only in the most tentative way. They would be these: That from the earliest historical times, in Gaul and Germany, very much land was owned individually, and that wealth on the one side and slavery and personal dependence on the other were always very important factors in the situation; that in Neustria and the other more completely Romanised parts of the Celto-Germanic world, the Roman *villa* was very generally one of the main elements, perhaps the dominant element, in the development; and that the seigneurial structure of the western side of the Carolingian Empire had a considerable influence on the somewhat subsequent development of the eastern side; that, even in Germany, communal ownership of land was never a fundamental or generally pervasive social institution; that there was something very much like large private estates, worked by dependents and slaves, from the very earliest days of Teutonic settlement; and that "the common freeman," though probably in a sense the basis of the legal system, was neither so peasant-like, nor so uniform, nor so communal, as we used to suppose. There is much to be done before the different parts of the puzzle can be satisfactorily fitted together; possibly there were large differences, not only as between Neustria and Austrasia, but also within the purely German territory itself. Moreover, the whole specifically agricultural side—the intermixed strips and all they involve—has still to be brought into relation to the legal side of the problem. We cannot fail to be struck by its omission even in so substantial a treatise on the lines of Fustel as that of Sée. As to England, I am afraid that, in spite of the labours of Maitland and Vinogradoff, we must wait for the solution of our local problem until a solution has been reached of the larger Continental problem. But this much is already highly probable, viz., that we shall not find anything that can fairly be called a general communal system of landowning, combined with a substantial equality among the majority of the people, under conditions of settled agriculture. To find it in any sense we shall have to go back to an earlier and "tribal" condition; if, indeed, we shall find it there.

For some time to come it will probably be advisable for

economic historians, in their popular expositions of agrarian development, to content themselves with starting with the *manor* (*Grundherrschaft*, *seigneurie*) as we find it over a large part of England, France, and Germany in, let us say, the thirteenth century, without committing themselves to any very confident assertions as to how it came into existence. It is true we have been warned by Maitland not to speak too freely of the "typical" or "normal" manor; he has pointed out how rich a diversity of conditions is to be found existing contemporaneously even among English villages and hamlets, so that it is not at all difficult to find abundant cases quite irreconcilable with each of our usual generalisations. Yet certain features are so commonly found in mediæval village life—features sufficiently indicated by such terms as *demesne* and *yardland* (*hufe*) and *week work*—as to be typical of the greater part of rural existence over a large portion of Western Europe. Everywhere half or more of the tilled land was in the hands of small peasant cultivators. The terms on which most of them occupied their holdings were, indeed, onerous; and we must take care not to depict their condition in colours too rosy. Yet there they were, alike in Central and Northern France, in Southern and Middle England, in Western and Central Germany. But to-day we find, of course, by no means the same uniformity on comparing the three countries. Over a large part of Germany and France the place of the serf cultivators of the Middle Ages has been taken by peasant proprietors. Agricultural statistics are everywhere curiously defective; but it is pretty safe to say that in France somewhere about one-half, and in Germany about two-thirds of the land is now in the hands of peasant proprietors. Such large properties as are now found in France seem to be pretty widely distributed over the whole country; in Germany, on the other hand, there are considerable provinces, such as Bavaria, where there are practically, over great stretches of territory, no large properties at all. But when we pass over to England we find to-day exceedingly few peasant properties. The great bulk of the English land belongs to large landowners, not cultivating their land themselves or through a bailiff, as is the usual practice with such large landowners as there may be in Germany or France, but letting out almost all of it to comparatively large tenant farmers, who employ agricultural labourers dependent on wages. The question to which I now turn is the explanation of this striking singularity in English development.

I do not propose to estimate the relative merits of the English and Continental systems. It is noticeable that writers on agri-

cultural economics in Germany usually assume that a system of peasant proprietorship—especially when it is so diversified that the landless labourer, if he exists at all, has a good chance of rising to be a small landowner himself—is obviously the more desirable, on general social grounds; though they throw in, by way of concession, the observation that a certain number of large landowners may possibly be of use in leading the way in the improvement of agricultural methods. Writers in England are wont to take the opposite point of view: to assume that the English system is the better as regards economy of agricultural production; though they in their turn may throw in an observation, by way of concession, as to the social benefits of peasant proprietorship. I leave all these questions on one side, and confine myself to the purely historical problem, how the difference between England and the Continent actually came about.

On the external facts of the development in England we are much better informed to-day than we were even twenty years ago. The works, for the earlier centuries, of Page and Gay and Savine and Tawney; for the later centuries, of Hasbach, Slater, Johnson, Prothero, Gonner, and the Hammonds have made tolerably clear almost every one of the processes involved. The first two of the names I have recited—Page and Gay—are American scholars; the third, Savine, a Russian scholar; and the large positive additions these three have made to our knowledge illustrate what I have already said as to the value of a foreigner's freshness of vision. Thanks to these, and to the others I have mentioned, while there are still some outstanding obscurities as to copyhold and leasehold, in the main we know what happened. We must agree with recent writers in describing the modern reorganisation of rural England on the lines with which we are now familiar as the work of "the governing class that ruled England during the last century of the old *régime*." We might add that this class commonly believed that what was for their personal advantage was also for the advantage of the community; that by far the greater part of the rearrangement of ownership and tenure took place under legal forms; that it involved on the part of "the governing class" both enterprise and expenditure; and that the more obviously injured interests received some pecuniary or other compensation. Whatever additions, however, we may think fit to make, it is still true that it was "the governing class" that was responsible. But this is no answer to the question why it was in England that this singular transformation took place. For, at the period from which we start, other countries had an upper class

of much the same sort as England; and there is no reason to believe that the English upper class was by nature either more selfish or more enterprising.

Let us see if any light is cast upon the matter by the experience of other countries. And let us begin with the explanation of the introduction of the present English system which seems to lie on the surface. No one can read eighteenth-century history without being continually reminded of the widespread zeal in England among the upper classes for the improvement of agricultural methods. We learn all about Arthur Young, his eulogy of "spirited" landowners, and his abhorrence of open fields and commons. But when these facts are adduced to "explain" the English development, it should at once occur to us that there was a precisely similar movement in France, the same enthusiasm for agricultural science, the same formation of agricultural societies. In France, as in England, it was deemed enlightened in governmental circles to abolish common rights and carry through enclosures; and the French edicts for these purposes were the direct outcome of the representations of the agricultural societies. Yet the "agronomes" had nothing like the same influence in France as is sometimes ascribed to them in England.

Writers who have gone beyond this first and most plausible explanation have sometimes been inclined to lay stress on the influence of the economists, at any rate on the final stages of the movement in England. With the one striking exception of John Mill, the economists of the first half of last century favoured both large ownership and large farming. We know how Bentham "thought the spectacle of an enclosure one of the most reassuring of all the evidences of improvement and happiness"; we know how McCulloch described the agricultural system of his day as "the powerful spring which has contributed more perhaps than any other to carry our commercial and manufacturing prosperity to its present unexampled height," and how he warned the people of his generation not to give "the smallest countenance to any scheme either for dividing estates or for building cottages on wastes"; we may recall how Porter, the statistician of Free Trade, condemned Goldsmith off-hand for "so ignorantly" deploring the disappearance of the peasantry. Such encouragement from the economists in one generation, like the encouragement from the agronomes in the preceding generation, must have given additional momentum to the forces of change: a modest landowner, who took his economics from its accredited exponents, would carry through enclosures and buy out small owners and

put farms together with a glow of moral satisfaction. And yet we can attribute as little primary importance to Political Economy as to Agricultural Science; for the plain reason that its voice was heard as distinctly and much earlier in France. It was, I need hardly say, the French *Économistes* of the eighteenth century who supplied the postulates and sketched the ground-plan of the later orthodox Political Economy of England: and one of the services of the Russian scholar Karéiew has been to remind his readers that the whole trend of thought of the *Économistes* was opposed to peasant farming. Quesnay, in his famous *Maxims*, had laid down that "lands devoted to corn crops should be brought together, as far as possible, in large farms, managed by well-to-do agriculturists," since "it is not so much men as capital that needs to be attracted to the country." The tripartite division of the agricultural population into landlords, capitalist tenant-farmers and wage-earning labourers, which we find assumed by Adam Smith and Ricardo, and which we are wont to explain as the unconscious reflex of contemporary conditions, appears just as clearly in the much-read writings of the *Économistes*. There it is presented as the obviously best arrangement, inasmuch as it promoted the greatest net produce: and this was at a time when the large tenant-farmer, though here and there he could be found, was by no means so characteristic of France as he was fast becoming of this country. When the princes of Savoy were carrying through that expropriation of the *seigneurs* which afterwards served as a potent example for France, "physiocratic" argument did what little it could to stay their hands. Read the *Reflections* of the "godlike" Turgot, with their dogmatic assertion of the need for "capitalistes entrepreneurs de culture," and of the parallelism of manufacture and agriculture, both requiring the separation of "entrepreneurs" from "simples salariés"; and one will realise that the essential principles of English "high-farming" received their earliest and quite conscious formulation not in England but in France. And yet, again, the doctrine had obviously nothing like the same effect in France as might plausibly be attributed to it in England.

The explanation of the difference between England and other countries is sometimes sought for in heroic acts of continental legislation. In particular, two episodes have engaged admiring attention: the land legislation of the French Revolution and the legislation in Germany of Stein and Hardenberg. But as to France, recent research has confirmed in substance the view of de Tocqueville, and has shown that the Revolution made no funda-

mental material change in the general position of affairs. The long and heated controversy on the subject finds its explanation in the ambiguous word "proprietor." Probably not much more land was held after the Revolution by peasant "proprietors" than was held before by "censitaires" and other classes of customary tenants under their respective *seigneurs*. Their position was substantially the same—with all the complicated technical and practical diversities and obscurities—as that of copyholders in England. Who was the "owner" of their land was a question which could not have been answered in the feudal ages in the modern sense, since ownership in the modern sense did not generally exist. The *seigneur* himself in legal theory was a "tenant" of the land, holding it of the King or of some other superior lord. But when the feudal theory died away, and it came to be held that there must somewhere be an "owner" for each piece of land, the question who owned the *censitaire's* or copyholder's land might be answered in two opposite ways. Ownership might be said to be vested in the lord, subject to the rights of the *censitaire*, or in the *censitaire*, subject to the rights of the lord. If we take the former view—possibly the view most generally current among lawyers—the French Revolution, by abolishing the lord's claim to certain dues, converted tenancy into ownership, and so created peasant proprietorship. But the latter view was so natural even before the Revolution that those *censitaires* who could not be dispossessed so long as they paid their dues, and who could dispose of their holdings practically as they pleased—and of these there were many—were already commonly spoken of, in popular parlance, in administrative reports and even in some of the law books, as "proprietors." The rough-and-ready estimate of Arthur Young that small owners held one-third of the land is confirmed by the most recent statistical researches based on the tax-rolls. Thus, according to Louchisky, peasant "proprietors" held 30 per cent. of the land of the Laon district before the Revolution; while the similar researches of Bloch assigns to them as large a share in the Orléans district as 44 per cent.

What the legislation of the Legislative Assembly and the Convention did for these "proprietors" was to put them into an easier position by freeing them completely from seigneurial dues, and so to enable them the more successfully to maintain themselves during the coming century. At the same time it converted into proprietors a good many occupiers of land whose tenant-right had not hitherto approached so nearly to ownership; like the holders of the terminable leaseholds characteristic of Brittany.

As to the effect of the sale of the confiscated lands of the church and of the *émigrés*, that is a question which cannot be regarded as so nearly approaching definite solution. Recent investigations seem to show that, though the lion's share went to the *bourgeoisie*, a good many of the peasants, and even of the mere cottagers, were able to acquire small portions. So that the net effect of the Revolution was both to strengthen and also somewhat to increase peasant proprietorship. But it would not have been able to do this if a population of peasants, whether small owners or customary tenants, had not still remained on the soil. The contrast with England where, by this time, according to Arthur Young, "small properties" were "exceedingly rare," is unmistakable.

The Stein-Hardenberg legislation is commonly thought of in England as having created a peasant proprietary in Prussia; and a desire is sometimes expressed that a statesman would arise in this country strong enough to follow their example. But, when we look into it, we discover that it effected, in a much more limited way, what was effected in France: it improved the position of many peasants already planted on the soil; it did not place them there. The really "epoch-making" book of Knapp makes it very clear that the Prussian measures were "very far from being models of social legislation." We might already have guessed this if we had reflected that the provinces concerned were part of that "Ostelbien," where—from the point of view of admirers of peasant proprietorship—conditions have for some time been very markedly inferior to those in any other part of Germany. Those peasants who were converted by the measures of Stein and Hardenberg into independent proprietors had to surrender from a third to a half of their holdings in order to compensate their lords for the loss of their labour services; and the privilege of enfranchisement was limited to "peasants" (*Bauern*) in the narrowest provincial sense of the word, viz., to those whose holdings were worked with a yoke of oxen. It was limited, that is to say, to the larger holders; to those who in mediæval England were called "full villeins" and "yardlings." Smaller customary tenants—from "half-yardlings" (to use an English term again) down to the various grades of cottiers—were disregarded. These—from the operation of economic forces and the exercise of the legal rights of their landlords—soon fell into the position of landless labourers, compelled, in order to secure a livelihood, to work on the *Rittergüter* (or gentlemen's estates). Knapp does not hesitate to say that the exclusion of small holders

from the opportunity of enfranchisement, and the contemporary withdrawal of the protection they had previously received from the government (to this I shall return) constituted the compensation, insisted upon by the landlords, for the sacrifice of their previous legal claims upon the larger holders. The estates of the *Junker* were enlarged; and at the same time they were enabled to dispense with the services of their larger tenants by having this new class of landless labourers put at their disposal. The class whose ill-fortunes in England have lately been set so poignantly before us—the class represented by the agricultural labourer—was precisely the class that came off worst in Prussia also.

The case of Prussia does, however, throw some light on the historical problem as it presents itself in England. How came it that in 1807–11 there were still so many peasant tenants in Prussia? The answer is to be found in large measure in the policy of "Protection of Peasant Land," pursued by the rulers of Prussia, as by the rulers of Austria and other paternal princes of the eighteenth century. The edicts issued by the Prussian rulers, almost as soon as they had freed themselves from the control of their provincial parliaments, and actually enforced from 1749 to 1808, prohibited any decrease in the extent of land held by the peasants. They said nothing of any legal rights the peasants might possess, for the obvious reason that the majority of them possessed at most only a life interest. So far as the Government was concerned, the lord might put in whom he pleased as tenant, but he must not add a peasant holding to his demesne. The policy, which was undoubtedly successful in achieving its object, was based not on humanitarian grounds but on reasons of State: a decrease in the number or size of peasant holdings was believed by the Government to be bad for the revenue and bad for the army. It gives one a curious sensation, after reading the careful expositions which Knapp has written of Hohenzollern policy in the eighteenth century with his eye fixed exclusively on Prussia, to turn to the agrarian troubles in England of the Tudor and Stuart times. Listen to Lord Bacon, writing a century and a half before Frederick the Great. "When," he says, "enclosures began to be more frequent, whereby . . . tenancies for years, lives, and at will, whereupon much of the yeomanry lived, were turned into demesnes . . . the king (Henry VII.) knew full well . . . that there ensued withal upon this a decay and diminution of subsidies and taxes; for the more gentlemen ever the lower books of subsidies." Moreover, Bacon continues, "the principal strength of an army consisteth in the infantry"; and "if a state

run most to noblemen and gentlemen, and the husbandmen and ploughmen be but as their workfolks and labourers . . . you may have a good cavalry but never good stable bands of foot." The Tudor and Stuart legislation, prohibiting "the letting-down of houses of husbandry," was of precisely the same character as the legislation of enlightened autocrats on the Continent a century and a half later, like that, it disregarded the legal question of the husbandman's tenure, and probably for the same reasons: that his legal right was either weak in itself, or afforded scant protection against social or economic pressure. It came earlier than the parallel legislation abroad, because the growth of the woollen industry furnished in certain districts of England a powerful motive for the incorporation of peasant holdings into estates managed on capitalistic lines long before a like temptation presented itself in Germany. Tawney, the most recent investigator of the period, concludes that the efforts of the English government did "mitigate the harshness" of the earlier enclosing movement. I should myself be inclined to conclude that the destruction of the old agricultural system would have gone much further even in the Tudor period but for the check imposed by the executive. And it is significant that the last serious attempt to enforce this check was made by the Stuart Council in the very period when, for the last time, it was able to carry on government free from the control of Parliament (1629-1640).

This last reflection brings us to the heart of the matter. All the freshly-acquired information as to the course of events in England and abroad confirms by additional considerations what Toynbee said as long ago as 1881: "the present distribution of landed property in England is in the main due to the system of political government which made us a free people"; in other words, to the establishment of parliamentary government in the seventeenth century. Parliamentary government, in the circumstances of the time, could only mean the rule of the landed gentry; and these were led, by the strongest motives of political zeal and personal interest combined, to widen and tighten their hold upon the land. And the local authority of the squires as justices of the peace, which Gneist so oddly christened "Self-government" in order to contrast it with bureaucracy, was but the reverse of the medal of which parliamentary Self-government was the obverse. Those who think that England could have had the one without the other might be referred to the impartial pages of the French publicist Boutmy.

The growth of the mercantile and monied interest gave additional impetus to the transformation of rural life by adding enormously to the wealth available directly, and indirectly through marriage, for the rounding-off of country estates. There were wealthy city men in France also; but the movement of capital countrywards was less than in England because the inducement was less. The withdrawal from the country gentry in France of all powers of local administration went on *pari passu* with their loss of influence upon the central government: both losses made the position of a country gentleman less desirable. And the very characteristic of our social system of which we have been most proud, the fact that England has no close caste of *noblesse*, operated in practice to strengthen landlordship, by adding to its pecuniary resources and commercialising its spirit.

The triumph of Whig principles in 1689, by placing the legislative and executive authority in the hands of the squires, put an end in England to the policy of Peasant Protection. It is to be noticed, also, that parliamentary government was associated with an actual increase of the geographical area over which landlord forces could operate. In reading the works of Knapp and his school on the Liberation of the Peasants in the several States of Germany, we are constantly reminded of the importance of the sovereign's own Domain. It was there that the benevolent autocratic princes of the eighteenth century could most readily convert, if they so chose—and they commonly did choose—a population of peasant tenants into one of peasant proprietors. Thus, soon after 1776, Maria Theresa not only freed the serfs on the royal manors in Bohemia and Moravia, but actually divided up the large demesne farms found in each manor into small hereditary holdings at moderate quit-rents. Frederick William III. of Prussia in 1799–1805 did not go as far as this, but he did at any rate convert the peasant tenants into owners. Even more significant, perhaps, is the present aspect of Mecklenburg. That province is sharply divided to-day between, on the one hand, the land of noble estates with their day labourers, and, on the other, the *Domanium*, covered with peasant farms of all grades, from cottages with small hereditary plots attached up to small and large peasant properties. The Government could set about establishing a state of things like this as late as 1846 simply because it had kept its hold on the Crown lands. But in England the Crown lands, which in 1660 still brought in an income of more than a quarter of a million pounds, produced not a sixth of that sum at the accession of Anne. In forty years they

had almost all been granted away. Exactly to what extent this happened under the last two Stuarts, to what extent under William III., it is not easy to discover. The matter was bitterly fought over between Whigs and Tories in the reign of William of Orange. But it is evident that the final destruction of the Royal Domain took place under the first Parliamentary sovereign; and also that the Whig doctrine of the Parliamentary Power of the Purse necessarily involved the disappearance of the Domain as a substantial source of royal income.

I have but one more foreign lesson, but that most significant. Brentano has written an illuminating essay on the question, "To what is due the preponderance in Bavaria of peasant proprietorship?" His answer, in brief, is this: Rather more than half the land of the duchy belonged in the seventeenth and eighteenth centuries to the church, *i.e.*, to various ecclesiastical bodies. The management of these estates and of the peasant holdings of which they were for the greater part composed—like the management, as Brentano remarks, of church property in Europe generally—was considerate but conservative: it introduced no large reforms, but allowed things to go on unchanged; so that even serfdom (*Leibeigenschaft*) continued here and there to exist in name, though in the course of time it had become merely nominal. The main point is that the peasants actually remained on the land, down to the time (1803) when the church lands were at last secularised and passed into the possession of the State. Only less important were the political results of the retention by the church of its landed property. Both for reasons of self-interest, and also from gratitude towards princes who championed the Catholic cause, the church was ready to make large grants to the sovereign; and its territorial wealth gave it the means. Rendered by such grants independent of their nobility, the princes of Bavaria were able to dispense with parliament (*Landtag*). There was no provincial parliament between 1612 and 1669, and no parliament at all from that date till the close of the eighteenth century. The gentry might wish to exact heavier services from their tenants or to enforce a preferential claim on the labour of their younger sons, but the prince was free to disregard their desires. And as the lay lords could not annex peasant holdings to their demesne farms without a larger command of labour, they had no alternative but to leave them as they were. Thus Bavaria remained a country of peasants, both on church lands and on noble lands, right into the nineteenth century. When the government finally, in 1848, took the matter in hand,

enfranchised the peasants, and took measures to convert them into proprietors, there was no powerful landlord interest, as in Prussia, to insist upon the surrender of a large part of each peasant's holding in return for the abolition of seignorial rights, and redemption was effected on extraordinarily easy terms.

It is hardly possible thus to learn the reasons why peasant ownership predominates in Bavaria without drawing some pretty obvious conclusions for England. We know, of course, that the confiscation of the monastic estates in 1536-9, and the passage, by gift or easy terms of sale, of this additional fifth of the land of the country into the hands of lay lords and gentry, did much both to create the great Whig houses of the eighteenth century, and also to enrich those substantial gentry, like the Cromwell family, who formed the strength of the Puritan party in the century previous. This, Hallam long ago told us, "was of no slight advantage to our civil constitution, strengthening and infusing new blood into the territorial aristocracy who were to withstand the prerogative of the crown." But on the other side of the account must be set the fact that it increased the area of land subject to the influence of lay landlords, and by contributing to make the king dependant on a parliament of landed gentry, it put it out of his power to protect the peasantry like his German contemporaries.

And now perhaps we can answer the question why the English land system differs from that of France or Germany. England owes its present land system, with all its merits and demerits, to the operation on the upper classes of the ordinary motives of self-interest. These classes were enlarged and strengthened by the growth of trade: and they were set free to carry out their will—and this, after all, was the main thing—by the triumph of the Reformation and the victory of Parliament.

W. J. ASHLEY

DUMPING AND THE TINPLATE INDUSTRY.¹

It is a matter for regret that English economists have paid so little attention to South Wales, for the northern land boundary of the Bristol Channel comprises one of the most interesting industrial areas in the country. The industrial changes of the last half-century, and the social consequences of such changes, provide an important chapter in modern economic history. South Wales is to-day exceedingly prosperous, the distribution of wealth among the various classes of producers is less unsatisfactory than elsewhere, and poverty due to industrial changes is practically non-existent. Moreover, the configuration of the country is such that, except in the coal regions of North Glamorgan, industrial development has not yet been able to destroy the amenity of the towns and valleys as places of residence.

The most obtrusive manufacturing industries are those engaged in the production of steel and tinplate. During the past fifteen years the tinplate industry has been one of the most stable and prosperous in Great Britain. It depends mainly upon foreign markets, and only about a quarter of the annual production is consumed at home. Until 1891 more than seventy per cent. of the exports were shipped to the United States; but the imposition of a protective duty under the McKinley Act led to the establishment of an American industry which, before the end of the century, was able to produce all the plates required for home consumption. A rebate of 99 per cent. of the import duty is allowed upon re-exports, and for the past dozen years "rebate orders" alone have been placed in South Wales. But although other foreign markets have now grown numerous, and the relative importance of the United States has diminished, so large is the rebate order that Uncle Jonathan remained the largest customer until about two years ago. In most of the other foreign

¹ Based on a paper read before the Economic Section of the British Association, 1912.

countries Welsh manufacturers enjoy a complete or partial monopoly, and the demand for the article has increased fairly rapidly and continuously.

The labour conditions in the tinplate industry repay investigation. Men, boys, women and girls are employed. The majority of the factories are well appointed, the wages paid are as high as those obtained by any group of industrial workers in the country, and the conditions of employment are exceptionally good. Piece-workers (who are in a large majority) enjoy an eight-hours day; the work is fairly congenial, and most of it calls for considerable skill. Labour is nowhere better organised than in this trade. Although the industry is strongly localised, and, apparently, well adapted to control by a single highly centralised union, the workmen are distributed among six associations. Since 1900 a Conciliation Board has been in existence, upon which, for the last few years, all the unions have been represented. Wage agreements are made annually, and once only has a dispute regarding the wage-rates resulted in a serious stoppage of work. But since the conciliation board was established at the beginning of a period of prosperity which has continued without serious interruption, it is difficult to say what strain it will bear. Although the standard rates have remained practically constant since 1874, the weekly earnings of the workmen, in consequence of improvements in machinery and plant, have been in many cases doubled, and in all cases considerably increased.

While these and other subjects call for attention in an examination of changes in economic organisation, we shall be mainly concerned, in this article, with those changes in the relations of the steel and tinplate industries produced by recent importations of sheet and tinplate bars. Little, if any, written material is available, for not even those journals published in the interests of the iron and steel trades have devoted much attention to the subject. In view of the unsatisfactory nature of part of the evidence upon which they are based, some of the conclusions here stated may require modification; but such tests of accuracy as are possible have been made, and the main contentions are probably closer approximations to the truth than were the unguarded utterances of controversialists during the recent discussion of fiscal policies.

A tinplate is a thin sheet or plate of steel which has been coated with tin for the purpose of protecting the steel from the action of acids and the effect of exposure. From tinplates are manufactured petroleum cases; cans for packing fruit, vege-

tables, and meat; dairy utensils and boxes for holding biscuits, cakes, tobacco, &c. The Welsh industry was first established (in the eighteenth century) to provide a market for the iron produced in the district: it was in every way subsidiary to the iron industry. A tinplate mill was but an appendage to the forge, which manufactured other iron products as well as bars. When, after the middle of the nineteenth century, steel gradually displaced iron in many uses, the forge grew increasingly dependent upon the tinplate mill, and the manufacture of iron bar became a more important branch. But the two stages of manufacture—the production of the bar and its subsequent manipulation—constituted practically one industry, and few “pure” tinplate works existed. The masters’ association included makers of iron as well as manufacturers of the finished product (generally they were the same people), and the workmen’s union was equally extensive; the “1874 list” controlled not only the rates paid to those engaged in tinplate manufacture, but also the wages of the men employed at the forge and furnace.

Between 1879 and 1886 steel was substituted for iron as the material of which tinplate was made—Bessemer bars took the place of puddled iron bars, and Siemens bars that of charcoal iron. The former were obtained from factories originally built for making rails, in which tinplate bars were only afterwards manufactured as an exceedingly profitable subsidiary product. Tinplate makers have never erected Bessemer plant to supply their needs; for the latter requires a blast furnace, and involves a much greater expenditure of capital than does the plant required for the alternative process. Moreover, ever since the owners of Bessemer works turned their attention to the manufacture of tinplate bars, the supply of the Bessemer quality¹ has been sufficient to meet requirements. Since tinplate made of Siemens bar is more suitable for the majority of uses, the growth in demand was, and is, mainly for this material; consequently new Siemens factories were erected in the neighbourhood of tinplate works. Although a few of these were built by tinplate manufacturers the most important were entirely separate. The substitution of steel for iron thus had a disintegrating effect, and the manufacture of tinplate became a distinct and separate industry from that engaged in the production of the raw material, steel or tinplate bar. Since Siemens and Bessemer tinplates are

¹ Bessemer (acid) bars are now only used for making galvanised sheets, but those made by the basic process are still employed in tinplate works. Bessemer bars for the purposes of the remainder of this article refer to those made by the basic process.

partial (though not complete) substitutes, their market prices rise and fall together. This sympathy in prices extends to the bar, and anything which seriously affects the quotation for one influences also the market value of the other.

A Siemens steel works consists of a number of melting furnaces, together with a bar-rolling mill. In the furnaces pig iron, scrap and shearings are melted and converted into steel. The molten steel is then run into moulds, and the rectangular blocks thus formed (known as steel ingots) are passed through the bar mill and rolled into sheet and tinplate bars of the required gauge (*i.e.*, thickness, or weight per foot). These, when cut to the sizes required, are delivered to the tinplate and sheet works, where they are employed as "raw material." The Siemens steel works in South Wales are highly specialised. Although rails are made in a few, the main (in most cases the only) product is steel bar. Some makers supply such bars to sheet-steel and galvanised-sheet manufacturers in the Midlands, but they depend mainly—and the remainder depend wholly—upon the South Wales finished-steel industries for their market. A tinplate factory consists of two main branches, the rolling mills and the tin house. In the former the bar is rolled into thin sheets, which are cut to the required size. In this state they are called "blackplate," while the strips cut away, which are returned to the melting furnaces in the steel works, are called shearings. The blackplate is coated with tin in the other department, and prepared for the market. In some tinplate factories sheet mills (similar to, though larger than, the ordinary rolling mills) have been added, and in these the bar is rolled into sheets which are useful for some purposes without further preparation. Again, tinplate factories are easily convertible into a form suitable for the manufacture of galvanised sheets, and some have been turned to this use in recent years. Thus, in three closely related trades of the metal group three articles are produced which, within very narrow limits, compete with each other. Moreover, since there is little difference between bars from which steel and galvanised sheets are made, and those employed in the manufacture of tinplates of common quality, all three compete for the imported bar. No returns appear to be given of the quantity used in each trade, but since the tinplate industry is much larger than the others in South Wales it naturally provides the largest market.

A tinplate factory contains several rolling mills, from eight to twelve being fairly representative. A steel works, on the

other hand, contains but one bar mill; and whether the latter is fully utilised depends upon the number of melting furnaces which feed it. A well equipped modern bar mill is capable of producing about 2,250 tons of bars per week, while the normal output of a tinplate mill in the same time is about 40 tons. One such bar mill can therefore keep 50 tinplate mills adequately supplied with material. There are roughly four times as many tinplate factories as there are steel works. At the beginning of the present century, when foreign bars were first dumped into this country, there existed but little real competition between South Wales steel producers; each supplied a fairly secure market, and although there appeared to be no price agreement, the conditions in normal years approximated to monopoly.

German and American steel works, from which sheet and tinplate bars were sent to this country, are not so highly specialised. They resemble the Bessemer factories of South Wales and the Siemens and Bessemer works of England and Scotland; and, normally, rails, girders, &c., form the chief products. But by simply changing the rolls in the mills bars for galvanising and plating purposes can be made. If orders for (say) rails are not forthcoming in sufficient quantities to keep the mills fully employed, they are held back for a time, and bars are rolled and sold abroad on a basis of prime cost. And since the two stages are often under single control the prime cost alone of the pig iron need be taken in estimating the prime cost of the bar.

In 1900 the monopoly hitherto enjoyed by Welsh steel manufacturers was endangered, and tinplate bars were imported at prices which bore little reference to the cost of manufacture. Dumping of this character has continued at intervals up to the present, although most of the foreign supplies during the past four or five years have been necessary to the progress of the tinplate industry. Welsh supplies generally fall short or run ahead of requirements; and for some time scarcity has prevailed. The first bars were sent over from Germany, and were of the Bessemer quality; but when, in 1904, German makers retired for a time from our market, considerable quantities of American bars made by the Siemens process were imported. Since the depression of 1907-8 (which scarcely affected the tinplate industry) German, American, and Belgian bars have been dumped at irregular intervals and in varying quantities. During the first period of dumping London agents of foreign producers travelled South Wales, and sold to the highest bidders bars which had

already been shipped to this country on the chance of finding a market; but as trade increased orders were accepted for future delivery.

Imported bars have usually been sold on the Welsh market at prices varying from 7*s.* 6*d.* to 15*s.* per ton (generally about 10*s.*, or 10 per cent. below the modal¹ price) lower than those ruling for the home manufactured article, so that at first they were disposed of without much difficulty. But they were not so cheap, relatively to the home product, as they appeared to be. The purchase of the imported article was (and is yet) a different kind of transaction from the customary one on the steel market; complaints were therefore useless and redress was impossible. Moreover, supplies were sent to this country without any reference to the actual needs of prospective buyers. They were generally of the standard size, and sent over in large parcels; consequently they suited neither makers of odd sizes nor those who made a considerable number of standard sizes. For not only were the specifications of such makers extremely varied, but the separate orders were so small that they received no attention from the foreign producers of the raw material.

Again, the quality of the imported bars was at first so poor and variable, and the gauges varied so much, even in small parcels, that they were only suitable for conversion into plates of common grades. They were difficult to manipulate in the mills, and breakages of machinery were frequent. The quality (especially of Siemens bars) has now improved, but even to-day some purchasers of tinplate stipulate that the article which is supplied to them shall be made from British steel.² Moreover, when contracts were made for foreign bars there was no guarantee of prompt delivery, and often during busy periods tinplate makers found it extremely difficult to obtain bars in fulfilment of such contracts. Finally, foreign manufacturers required a larger margin in the rolling weight. Since this was a much more serious disadvantage in tinplate manufacture than in the making of steel and galvanised sheets, the imported bar was better suited to the latter use. But although dumped bars were not so cheap as they appeared to be, nor so suitable as the home product for tinplate manufacture, they were undoubtedly useful, and relatively cheaper to those tinplate

¹ By 'modal' I do not mean either normal or average, but rather that price which corresponds to the greatest ordinate of a frequency curve. The phrase is used to imply the price characteristic of the period under consideration.

² The *quality* of a tinplate may be discovered by a simple test, but it is impossible from this to trace its origin. Consequently the merchant is forced to accept the word of the manufacturer.

makers who confined their attention to standard sizes and ordinary grades.

The effects of dumping were far-reaching.

(1) The monopoly hitherto enjoyed by Welsh steel manufacturers was destroyed. Previously they had been able to dictate their own terms to their best customers, the tinplate makers. Often they supplied the latter only with those sizes which could be made without inconvenience, and in quantities which best suited themselves. And this policy naturally proved a great hardship to the smaller tinplate manufacturers. Since they were compelled to purchase in quantities far in excess of their requirements their credit was severely strained—more capital was required to carry on the trade, and interest charges were heavier. The surplus stock, too, was slowly oxidised through long exposure in the yard, and its value reduced. Moreover, since the bar makers supplied these sizes convenient to themselves, the waste of steel in the production of plates was considerably increased. In short, not only were the conditions of manufacture somewhat irritating, but the cost of production was higher than it need have been. When the monopoly was destroyed Welsh steel manufacturers were compelled to change their methods. They accepted orders for small quantities, and willingly supplied bars of the qualities and gauges required.¹

(2) The second immediate result was a reduction in the prices of steel bar. The market for this commodity was often seriously affected by the underselling of German bars. It is true that the latter were sent over in relatively small quantities, and that the total excess of supply was inconsiderable. But there is no close and obvious arithmetic relation between the extent of over-supply and the amount of reduction in price; a small over-supply *may* be followed by a heavy fall in prices. And this was true of the early days of dumping.

The offer of small quantities of foreign bars at lower prices often forced local steel manufacturers to reduce the prices of their own bars very considerably. Nor did this prove to be so great an advantage to the tinplate manufacturers as is commonly supposed. For the smaller firms played into the hands of the merchants.

¹ Some bar manufacturers tried to prevent the purchase of foreign bars by stipulating that the shearings which were bought from tinplate makers should be of Welsh bars only; others accepted shearing obtained from imported bars, but only at a price about 30s. a ton below that paid for shearings from Welsh bars. But it was obviously impossible to distinguish between the two; careful analysis would only indicate quality. Moreover such analysis was not worth the cost. They were consequently forced to rely on the honesty of the tinplate makers.

They were accustomed to work with as little capital as possible and as much credit as they could obtain; they relied upon immediate sales and early payment for capital to continue in operation. When dumped tinplate bars appeared in this country the merchant made use of the low prices at which they were sold to "bear" the tinplate market, and the prices of the manufactured product followed those of the raw material: in other words, the merchant rather than the manufacturing class gained most by the fall in the prices of steel bar.

It should not be forgotten that the small makers of tinplates suffered in two ways. Usually they sold to merchants, and suffered from a fall in market prices. But they did not, as a rule, succeed in obtaining dumped bar: and they only benefited to the extent that foreign importations resulted in a reduction of prices of Welsh bars. German and American bars—especially the latter—came over in shiploads¹ or in large "parcels," and were generally sold to large buyers. The latter, on the other hand, were less dependent on the merchants. Their market was fairly secure, and their prices for tinplate varied less than market prices. Production was less a matter of speculation and more in response to demand directly from customers abroad and in fulfilment of contract. Consequently, those makers who benefited least by dumping appear often to have suffered most from the resultant fall in prices of tinplates.

Although prices to tinplate merchants were reduced, consumers who purchased from them did not always, if often, benefit; for just as some large consumers in foreign countries made contracts with manufacturers without the intervention of merchants, so, too, did other consumers make contracts with merchants; in other words, while the tinplate market is highly organised as between manufacturers and merchants, it is not so highly developed as between merchants and consumers, and wide variations in prices charged to consumers may exist.

Moreover, even if prices to consumers had been proportionately reduced, the reaction on trade would have been extremely slight; for the long period demand for tinplate (as distinct from market demand) is highly inelastic within fairly wide limits of price. Thus it seems absurd to argue, as many have done, that the prosperity of the tinplate trade in recent years is largely due to importations of bar at low prices. It is undoubtedly due to the increased use of tinned food, &c., and the effect of slight variations

¹ Not until the summer of 1911 did American shippers accept less than a full cargo of bars.

in the prices of tinplates upon the prices of and demand for tinned goods is negligible.

The destruction of the bar monopoly was undoubtedly an advantage to tinplate manufacturers, but an advantage purchased at considerable cost. Dumping occurred at irregular intervals, and the quantities imported varied considerably; consequently, violent and unforeseen fluctuations in prices took place, market conditions became more unstable, and contracting for future delivery more difficult and risky.

(3) Undoubtedly the most important effect of dumping has been to hasten the process of integration in the steel and tinplate industry. Until about six years ago the two stages of manufacture formed quite distinct businesses, but now the production of Siemens bar and the manufacture of tinplate constitute practically one industry.

Space will only permit a short statement of the manner in which the change has been produced.

In 1905 the Americans exported considerable quantities of Siemens bar to this country, and Welsh prices were extremely low. But at the end of the year dumping practically ceased, and the market improved. A few months later the Siemens Bar Association was formed for the purpose of raising and regulating Welsh prices; and the conditions of manufacture and trading were so favourable that its efforts were largely successful. There are but few makers, and the number is not likely to be increased very considerably. For steel production involves a considerable expenditure of capital; the producing capacity per unit is large relatively to the total demand, and a few factories can produce all the bars required.

Late in 1907, however, foreign bars once more appeared on the Welsh market, and more than one local steel manufacturer was in a position of some difficulty. The easiest way out of this difficulty was to secure preferential treatment and a market for the bar by acquiring financial interests in tinplate factories.

This policy has now been carried out everywhere, and to-day there are practically no Siemens bar manufacturers who are not also financially interested in tinplate works, and very few Siemens tinplate makers who are not shareholders in steel manufacturing companies.¹ But it should be observed that this process

¹ The movement still continues, but a few tinplate makers remain independent. They now complain that during brisk periods they are left out in the cold and cannot obtain steel. Bar makers naturally supply those works in which they are financially interested before they sell to the outside manufacturer. The importance of a steady supply of steel of guaranteed quality made the average tinplate maker ready to join the movement towards amalgamation.

of integration would have gone on—at a slower rate, perhaps—even if no dumping had taken place after 1906. It was the inevitable consequence of the formation of the Bar Association. For although the latter controlled prices, it made no attempt to control the output. While the steel manufacturer could not sell in the open market at a price below that fixed by the association, there was nothing to prevent him from erecting additional melting furnaces and in other ways increasing the producing capacity of the factory. And the high prices fixed by agreement naturally induced him to do this, and to guarantee a market for the whole of his output by purchasing or combining with a sufficient number of tinplate firms. In the tinplate industry, although the prospective advantages were considerable, the conditions were not favourable to the control of prices by combined action. Not only were there too many firms already in existence, but the cost of erecting new factories was so small that new competitors could easily enter the trade and sell plates at lower prices. It is evident, then, that recent dumping, by early creating a condition of things which would inevitably have followed, has hastened the process of integration.

The situation to-day presents features of interest. The Bar Association appears to be a successful experiment; prices are fixed by agreement and competition seems to have been eliminated. But in reality steel manufacturers are competing against each other in the next stage. Large firms controlling both stages will often sell tinplates without profit, and if necessary erect new tinplate mills, in order to secure a market for the steel at association prices. The trade has increased so steadily during the past half-dozen years that this fact has escaped general notice, but within the next few years it will probably become more evident to the outside public.¹

¹ This prediction, which was made when the paper was written in September, 1912, has already come true. In the summer of last year demand was in excess of supply and prices were extremely high, but at the time of writing this note (April, 1913), between 15 and 20 per cent. of the tinplate mills are idle. Although the depression is likely to be of short duration the causes are worth mentioning. Some operate on the side of supply, the remainder on the side of demand.

In the first place the producing capacity has been rapidly increased during the past two years. (1) As already hinted in the text, a large number of new mills have been erected since the process of integration became well marked. This is undoubtedly the main cause of the depression. (2) The efficiency of some of the new mills is greater than that of the old ones. The standard size of plate is 14" x 20". At first 14 inch rolls were employed, and plates were rolled "single width"; then 28 inch rolls were introduced, plates were rolled "double width" and cut in two, so that the output of the mill was doubled with little, if any, increased expenditure of labour. Some of the rolls in the newest mills are 42 inches long, and plates are rolled in three widths. (3) Improvements in the driving machinery have increased

The question naturally suggests itself : how far will the movement towards monopoly or combined action go? But a few years ago a well-known writer argued that a price agreement in the tinplate trade was impossible, as there were too many firms in the

the normal output of the older mills by reducing the number of forced stoppages. It is thus obvious that the producing capacity has been increased more than proportionately to the number of new mills erected.

In the second place the demand for tinplate has fallen, mainly because the Balkan War has caused the Roumanian and other markets in the near east to be temporarily closed. But interest is now mainly directed towards the American markets. About two years ago the rebate orders from the United States, and shortly afterwards the Canadian orders, were lost to Welsh manufacturers. At that time they were less remunerative than those which were accepted from other customers, and the latter were sufficient to keep all the mills fully employed. In the United States, on the other hand, both the steel and tinplate trades were suffering from overproduction. Formerly the "surplus" bars were dumped into this country, but recently they have been converted into tinplates for sale at home and in Canada. The policy of dumping tinplates into Canada and competing for the rebate orders was encouraged by the workmen, who accepted large reductions in wages when working such orders. It is now reported that part of the rebate order for this summer has been placed in Wales, so that it appears likely that a portion, at least, of the American trade will return.

While it is impossible to compare the costs of production in the two countries, it is probably true to say that the manufacture of tinplate involves a smaller net expenditure of human energy in America than in Wales. On the other hand, since the measures of value differ materially the money cost is considerably higher. The facts already given suggest that American manufacturers can only compete successfully when prices are abnormally high, and even then, it may be, only when prime costs are reckoned for pig iron and steel bar.

These considerations are relevant to a discussion of the probable effects of the proposed reduction in the United States tariff. If we cannot recapture the rebate order it is difficult to see how we can hope to benefit immediately from a reduced tariff. Until the producing capacity can be adjusted to the new conditions the Americans will continue to supply tinplate intended for home consumption, even assuming the present high duty to be necessary to profitable business. Moreover, if a new and lower scale of duties is adopted, of which the tinplate tariff is only one, a measure of value more like our own will emerge, *i.e.*, the general level of prices will fall; and if the statement that tinplate manufacture involves a smaller net expenditure of human energy is true the ultimate effect of the proposed tariff changes will be unfavourable to the Welsh industry. It is undoubtedly true to say that if the United States had adopted a Free Trade policy when the Wilson Act was passed, the Welsh tinplate industry would not have recovered so completely from the blow given it by the McKinley Act.

Some writers attribute the present depression in South Wales to the coal strike of last year. Contracting for future delivery is undoubtedly made more difficult by strikes and fear of strikes, but orders are seldom lost unless there are competing commodities produced outside the strike area, or a competing branch of the same industry in a foreign country. Neither of these conditions obtains in the case of tinplate, so that the coal strike can scarcely be a contributory cause of the depression. It is extremely likely that demand will soon be greater than ever before, and when prosperity returns it will not be surprising to find a serious attempt being made to control prices by combined action on the part of the manufacturers. The Siemens Bar Association may easily become a bar and tinplate association.

trade. But to-day we find a comparatively small number of large business units, each of them exercising partial or complete control over a bar mill and one, two, or more tinplate factories. Between these large business units keen competition prevails at present, and keener will prevail in the future; and without the operation of certain counteracting forces now at work, some such combination as exists to-day in Germany and America would probably be formed.

The conclusion we arrive at is that dumping provided a strong incentive to the formation of the Siemens Bar Association, although the conditions of success of the association's policy were largely independent of it. In this way it hastened the process of vertical integration, and helped to change the organisation of the two industries. The question of the control of tinplate prices, which quite recently was regarded as outside the range of business politics, has now become a practical one, and is likely to receive consideration in the near future.

J. H. JONES

THE INCIDENCE OF INCREMENT DUTIES.

IN his classic treatment of the question of unearned increment, Mill rightly pointed out that the present market price of land covers the discounted worth of future accretions to its value. It follows, as a corollary, that any tax upon those accretions when realised will also be anticipated and discounted, reducing the present market value. The view that the whole burden of an increment tax must be upon present holders has recently received the endorsement of Mr. C. F. Bickerdike in this JOURNAL,¹ after he had dealt with the considerations leading away from that conclusion. A principle so fundamental is worthy of close examination in relation to practical schemes, in view of the future of this new branch of taxation.

The view of the writer was expressed in this JOURNAL² in the following terms: "Taking the term 'market-judgment' to be the reasonable consensus of opinion as to the future prospects of a given site, it may be said that everything as far as that market-judgment can see, up to its 'time horizon,' as we may call it, has an influence on present values. Beyond this horizon nothing can be judged, all chances of further change in value are even. (If they are not even, let a chance of further improvement preponderate, say as 3 to 2. Then, obviously, this preponderance must have an influence on present value, and the point where 3 to 2 is still seen is *not* the horizon.) In a sense, we have here the difference between investment and speculation or gambling. If the market-judgment (as an averaged risk) is borne out, the future value is the same as the present, with a difference for interest only. The value at the horizon, discounted, is present value. Now a tax allowing for interest could not confiscate present *investment* value. The interest must be reckoned on the whole value of an unused site, but for a used site the capital value of the present income must be deducted from the whole value,

¹ March, 1912.

² March, 1911.

and interest reckoned on the unproductive margin only. The 10 per cent. allowance represents about two and a half years for an unused site, but may be twenty years on a well-used site with some future prospects. The question of confiscation is jointly one of the distance of the horizon and the amount of the unproductive margin."

Professor Pigou,¹ in his letters to *The Times*, pointed out that an estate yielding no income, but expected to be worth £350 per annum in 1934, or a capital sum of £11,600, would be valued in 1914 at £6,400, reckoning interest at 3 per cent., and a tax on the "increment" of £5,200 is not in any sense a windfall tax, "but a direct impost on the present owner." In the majority of cases the postulate that there is no income at all is, of course, incorrect—market value comprises the capital value of present income and that of future expectations. Supposing any fictitious currency increment to have been eliminated, Professor Pigou says :—

"It is possible to separate the windfall element in the real increment in the following manner : If a piece of land in 1914 has a total value $(x+y)$, made up of a value x due to its present (agricultural or other) use, and a value y due to expectations of building rents after 1934, there should, interest being reckoned at 3 per cent., be a non-windfall increment in the value of the land by the year 1929 equal to 56 per cent. of y . If interest is reckoned at 4 per cent. this non-windfall increment should amount to 82 per cent. In order, therefore, that increment tax may be confined to windfalls, it ought only to be levied on increments which, at the end of fifteen years, exceed, say, 70 per cent., not of the total original site value, but of this total original value *minus* the part of it that was due to the then (agricultural or other) use of the land. For periods of greater or less length than fifteen years similar calculations could, of course, easily be worked out."

It appears, so far then, that a tax could be designed to tax the windfall element only, to avoid investment interest, and therefore to have no effect whatever upon present values. But Mr. Bickerdike is not in agreement. His own words must be quoted, in order that his meaning may not be distorted. "Anyone who has paid that present value needs the increment to enable him to earn interest. To tax the increment simply knocks so much off the present value.

"But do we really get out of the difficulty even if we allow

¹ *Vide* "The Policy of Land Taxation."

for interest? Do we get, in theory at least, a tax on 'unearned increment' pure and simple? Is it not like a tax on winnings in a lottery, *imposed after the tickets have been bought*? Land is bought with the knowledge that its future value is problematic. The purchaser gives a price for the probability. If you announce that all the chances that turn out well will be taxed, is it not exactly the same thing as knocking something directly off the present value of all the chances?

"Do we not then arrive at this conclusion, that the increment value tax is no different, as regards the question of incidence and of equity, from a simple tax on existing land values, and that it has this peculiar feature which differentiates it from all other taxes in force, excepting the old land tax, that the *true incidence of the whole burden, present and future, is on a limited number of existing owners of land*?"

Mr. Bickerdike rightly concludes that Mill, and others who have made no reference to interest, have failed to see that part of present value must be confiscated, and his criticism of the English duty is so far just, but in so far as his criticism goes beyond the omission of interest, and he has in mind the omission also to deal with the "lottery ticket," we think his remarks require careful examination. Professor Pigou deals with the same point much more cautiously when he says:—

"In some cases an increment which is not definitely expected nevertheless enters in some measure into present value, and is, therefore, not true windfall. I may, for instance, have a piece of land which is expected to yield for a long while £300 a year, but in regard to which it is recognised vaguely that either a rise or a fall may take place. This land—with interest at 3 per cent.—will have a capital value of £10,000, and it, therefore, seems at first sight that the possibility of its rising in value is not being discounted. In reality, however, this possibility does enter into present value, acting there as a counter-weight to the possibility of a fall. The measure of influence which this possibility, reckoned over the ensuing fifteen years, exercises upon present value is given by the sum for which the right to all increment *of this class*—I am not, of course, now referring to the *anticipated* increment already discussed—accruing during the said fifteen years could be sold. The matter is one upon which the opinion of land-agents and others might usefully be taken. I feel some confidence, however, that the sum obtainable would in general be a very small fraction of the capital value of the land. If this conjecture is right, these increments, when they accrue, are

predominantly, though not entirely, windfalls; and the passing of a law for their taxation would not strike present owners to any substantial extent."

Probably Mr. Bickerdike would not wish to insist greatly on the practical value of his "lottery ticket," but since he goes so far, and the point is really of considerable importance, it is worth while to examine it more closely. We feel somewhat in the position of the Irishman who had "never seen the kettle, and if he had it was lent him, and if it was lent he returned it, and if he returned it it was all right when he did so, and if it was broke when he returned it, well then it was broke when he first had it." For we doubt the real existence of the lottery ticket, but if it exists it is not much good, and if it is, well it is not really a lottery, and no one has read what is on the ticket.

In what sense is the value of land problematic, and in what sense does the purchaser give a price for the probability? Taking, for simplicity, a site that yields no present income, we may conceive that it will be worth £2,000 at the expiration of a certain length of time, and therefore £1,500 now, the present value, because :—

(a) It will *certainly* be worth that, on capitalised income yield, and the prospects of plus or minus are *nil*, or

(b) it may range between £1,900 and £2,100 at that time on income yield (we assume for the moment that what Professor Pigou calls the "counterweight" is equal to the prospect of deficiency, and that value is *midway* between the extremes, though this is not necessarily true), or

(c) it may range between £1,500 and £2,500 (on income yield).

Now, on Mr. Bickerdike's principle, (a) would be covered by the interest allowance, and there is no depression of present price; (b) has a practical range (on the assumption of a 20 per cent. tax, above interest allowance) from £1,900 to £2,080, mean £1,990, present value £1,497 10s.; (c) has a range £1,500 to £2,400, mean £1,950, present value £1,462 10s. Thus, the effect on present value is proportioned directly to the pure gambling element, and, inversely, as the stable business element, in the valuation, and if it has some effect on present values in a few cases it is not wholly to be deplored. If one put a tax on gambling results, there would be little reason, in equity, why it should not apply to transactions already entered upon. But in land it is only a small proportion that are of the extreme gambling type, and we may get an unbroken series up to the other extreme

where the purely commercial unspeculative result rules, and there is absolutely no lottery element. Only a small proportion of cases are of the highly fluctuating or lottery kind, and also only a small proportion of dealers in property care anything at all for the lottery element, and give anything for it. It may be said that one person who does, out of a dozen bidders, will command the sale; but we would venture to say that even that one is often absent, and it is not those who esteem the lottery ticket who generally rule the prices.

Then, again, there is the mistaken assumption that the relation between lottery ticket values and lottery prizes is a simple *mathematical* one, and that a ticket is "worth" the prize divided by the chances to the average person. The relation is far more of a *psychological* character. Is it to be understood that one grand prize of £1,000 for a thousand tickets would give the same ticket-value as five hundred £2 prizes? Indeed, no; and the point of maximum appeal to the gambling interest is probably between these two, but generally it may be said that a little docked off the big prize would not affect the value nearly as much as a reduction of the *number* of chances. So a tax that "docks" something from the prizes will not have such serious results as one which proceeds to take the whole of every fifth prize away. The "demand" side is little influenced by the exact size of prizes, but greatly by the chances. Our assumed interest-free increment duty then will not have an exact mathematically-equivalent effect on values, especially when the prize is discounted over a long period and we are thinking only of *present* values.

But it may be said that we have assumed that the lottery element is present during the currency of the accumulating interest period, whereas it should be taken as coming into existence after the realisation of this. That is, we should take the value to be £2,000 at maturity (£1,500 now), *plus* a lottery ticket to be given us then for what will happen in the more distant future. We have, as (a) above, what represents a certainty (as a market judgment) *plus* a problematical after-possibility. This chance element may be (1) either a narrow or wide range of fluctuation in value, say down to £1,000 (decrement), up to £3,000 (further increment), as given in (b) and (c) above, or (2) one chance, in a number, of a good prize. Dealing first with (2), the above remarks apply with greater force owing to the distance of time. We get a position, in most cases (in evaluating the present value of a lottery ticket to be awarded at some distant period, of which the prize will be payable at a period still more

distant) analogous to the value of a reversion which, lying beyond a number of years having a reasonable relation to the span of human life, fails to have any effect upon present values.

But in the case of (1), which may be said to be the typical one, and is probably what Mr. Bickerdike has in mind, where problematical future values have to be dealt with, we must say more. In this case, we can see our way to a certain definite result with reasonable certainty, but *after that* there will be a fluctuation up or down. The up and down are in equipoise; a tax on the "up," and no allowance for the "down," will make the point of equipoise lower, and thus affect present value—such is substantially the argument. But a crucial question has been omitted. Is the system a personal one, dealing only with the position of the owner; or is it impersonal, dealing with the site? The English system is the latter. On an impersonal system, dealing with the site only, when the site has risen to £2,000 as expected (and if interest is allowed, no real chargeable increment is found), it is *franked for ever* for £2,000. What is the significance of this? If it sinks in income value thereafter to, say, £1,700, a purchaser knows that it is franked at £2,000, and he has a £300 rise absolutely free of tax possible. So this site, in competition with other sites of equal income values, which have never been so franked up to an advanced point beyond the existing income value, has a substantial advantage. With the fair postulate that taking the generations through, and ignoring decadal fluctuation, sites will have a tendency to increase, this site will be bought with a subsequent advance and recovery actually in view, and the question of a tax-free increment acting as a differential advantage will prevent the value falling to the point it would have reached but for the tax already borne.¹ If other sites, having no such advantage as the "shield" provided by the over-sanguine estimate previously placed by the market-judgment upon the site in question, would have been worth £1,700 in the absence of a tax, and if we assume that the existence of the tax depresses their value below that figure, the shielded site does not share the disability at this point. The fluctuation range will not then be altered from, say, £2,300-£1,700 to £2,250-£1,650 by the existence of a tax, but to £2,250-£1,700, i.e., £1,975, or *half* the amount of the tax below the old mean. In short, the equipoise is reduced by half the tax, because, although

Analogous to the effect of the Land Tax exemptions and abatements on market values. *Vide* "Land Valuation and Rating Reform," by the present writer, *ECONOMIC JOURNAL*, 1911.

any further increment will be taxable and reduce the prize, if there is a decrement, tax will be held up as paid in advance for a subsequent recovery, and the fact of freedom for this tax will be discounted in the decrement. If we revert to the lottery figure, it may be said that while each holder is to be given, on the declaration of the result, a ticket in a subsequent lottery, those tickets given to the failures shall be favoured by carrying the right to prizes of the old magnitude, whereas the tickets given to the successful continue to bear title only to taxed prizes.¹

But it is one thing to have halved the maximum burden which is to be foreseen or discounted, and another to consider the whole practical effect of the reduction. It is one thing to observe free action in a vacuum, but another to modify it by the introduction of normal conditions. In the catallactic sphere we have considered, the change in size doubtless does not affect the probability of shifting in the slightest, but in real life we know that the smaller the tax the less tendency it has to shift, and if resistances are constant the probability of shifting will increase progressively with the burden. At the point of emergence into practical possibility, a change directly as the square seems a not improbable assumption. It is not too much to say that in halving the burden—distant and not too tangible in this case—the probability is so diminished that the net resultant burden shiftable in the aggregate of the cases is reduced to one quarter. But this is viewing the tax as of an ordinary kind, prospectively considered. When we remember that it is merely an alteration in lottery values, and that its appeal is not along actuarial but psychological lines, and along those lines is in the direction of minimum effects, the actual probability of shifting back is still further reduced. Some of the considerations urged by Professor Pigou in relation to

¹ While it may not be *prima facie* plausible that the lower limit can be actually improved by the imposition of such a tax (i.e., that it may be *above* £1,700 in the example taken), it is conceivable that such may be the case if the conditions urged by some writers as likely to ensue upon the introduction of the tax are actually found to exist. They contend that ownership will be perpetuated, and owners will prefer to remain in possession and receive the income, rather than become, by capital realisation of that income, subject to the burden. The contention is dealt with later, but in so far as it may be correct, it is an interesting speculation to consider the effect in a limited market with few buyers and sellers. The owners of "unshielded" sites, worth £1,500, would not wish to sell, unless the price rose enough to reimburse them, and there would be, for them, a zone of reluctance, say, to £1,750. A single "shielded" site, in its downward search for a buyer, need not drop to £1,700, but only to just within this zone, to be carried off, Dutch auction fashion, say at £1,740, by the most urgent bidder. The owner having no cause to share the reluctance of the others, can, in short, profit by it. In such an event, of course, the point of equipoise after the imposition of the tax is closer than ever to the original figure.

"postponed" taxation in general are also in point here, and to the same end.¹

Here we may profitably consider the effect of such a device as the "substituted site value"² in the British system, where a purchase figure within the twenty years prior to 1909 which is higher than the 1909 valuations may be substituted as the datum line. What is the position when two sites of equal value (say £1,000 at 1909) are in competition in the market, one of which cost, say, £2,000 fifteen years ago, while the other had no such history? If both rise in value to £1,500, the seller of the first gets his £500 "profit" in full, whereas the other will secure, after payment of the tax, only £120. The first, if buyers are few, can afford to sell at £1,470 and still do a great deal better than the second at £1,500. The provision acts as a handicap in favour of holders of the former and may have a tendency to lower the market.

On the whole it may be said that, "even in theory," Mr Dickerdike's doctrine of universal incidence on present owners needs such severe qualification as to destroy its value as a valid criticism of an interest-allowing increment tax proposal. And in practice, too, it has very little semblance of truth. The statement that the true incidence, present and future, of a real windfall tax is on a limited number of existing owners of land, through the lottery principle, is similar in degree, if not in kind.

¹ *Wealth and Welfare*, p. 376.

² The Finance (1909-10) Act, 1910, provides [sec. 3 (5)] for a 10 per cent increase in site value to be tax free on each occasion when the increment value is being calculated, with the slight reservation that in any five years the amount so allowed shall not exceed 25 per cent of the site value. Sec. 2 (1) confines taxation to the increment in *site* value. Sec. 1 enumerates the occasions of taxation to include sale, lease over fourteen years, and death. Sec. 2 (3) provides for a substitution (for the "original" value of 1909) of any greater sum paid during the preceding twenty years, to avoid taxation in the case of a recovery from depression since that purchase, and sec. 3 (1), etc., for taxation to be confined to progressive increases and not to apply to recoveries from intervening decrements.

The German Imperial Increment Tax Law of February, 1911, provides in sec. 1 for taxation of increment in the *whole* value of property, in sec. 7 for "death" to be excluded from the occasions for increment, in sec. 16 for certain allowances of interest upon the purchase price, from 1 per cent to 2½ per cent according to circumstances. Sec. 17 makes the tax retrospective on increments from the value in 1885, or from any higher purchase price. Sec. 28 establishes the tax graduation from 10 per cent on increment not exceeding 10 per cent, up to 80 per cent on an increment of 290 per cent, this tax being reducible by 1 per cent of its *amount* (not rate) for every year of the increment period, thus treating short period speculative rises most heavily. These points suffice for the purposes of this article—a further detailed comparison of the two complex systems is given by the writer in the *Local Government Review*, December, 1912.

to the statement that a crooked nose three generations hence exists to-day in the great-grandmaternal ovum.

Professor Davenport, and other American writers, abuse the "Capitalisation" or "Amortisation" doctrine by applying it too sweepingly. "With every increasing assurance that the new tax program will be adopted there must concurrently be taking place a fall in the market values of the lands. When, finally, the law has been enacted, the values of lands will have fallen in a degree to express the present worth of the expected future increases in the tax burden."¹ When Professor Davenport, speaking actually of the English tax, goes on: "Such lands as are *thereafter* sold will exhibit in their sale prices this prospective diminution of *income*," there seems to be some confusion in the language. "The real taxpayer is, therefore, the present vendor. If the new proprietors are ever called upon to feel any burden, it must be solely by the fact that they have mistakenly appraised the degree of menace." Professor Johnson² says also that: "It is true that the burden of the tax will fall on the present owners; . . . the decline in selling value will be the sum of the present values of all the future increment taxes, *so far as they are anticipated*." We italicise his last words, because they govern the whole question. Fortunately, the writer goes on, "the sum of an infinite series may itself be quite small. Moreover, the fact that land owners and land buyers may not expect to appropriate all the increase in value is no reason why they will not appropriate all the law allows. Eighty per cent. of a loaf is better than no bread." These statements about the immediate incidence of all future burdens are extravagant indeed when we remember that the majority of land values comprise, in the greater part, capitalised present income, with perhaps a small margin for real expectation (and occasionally a little payment for a lottery element), so that a 10 per cent. allowance is more than enough to prevent the throwing back of the tax on this marginal element in most cases, leaving the genuine windfall element to bear its own tax when it arises.

But Professor Davenport's remarks about the effect of the burden in inducing owners to retain ownership and receive rents, instead of selling and paying a tax, are very much to the point.³ He urges that the effect will be to lessen transfers, and the tax will therefore tend to fall more and more upon occasions for duty

¹ *Quarterly Journal of Economics*, Vol. xxiv., p. 289.

² *Ibid.*, p. 761.

³ Since the tax is levied only on sale, grant of long lease, or on death, in England, while in Germany "death" is omitted from the occasions for liability.

at death. Thus the periods of accrual will become longer, and occasions "fewer."¹ But under the British system, with the 10 per cent. allowance every time, and still more under the German, with the progressive rates, there is a strong countervailing tendency that most writers omit to notice.² If "occasions" tend to be few the Revenue will be the gainer. Again, too, there is always a demand for outright purchase, and if owners hold up so that properties "trickle" out into the market, prices will harden up, and even valuations at death will have a tendency to be based on the evidence of the higher and fewer sale prices, which at once set up a counter attraction to sell. As Professor Johnson has said, Professor Davenport's theory—"that the perpetuity of the landed gentry has been guaranteed"—needs severe qualification. Brunhuber rightly says that an increment tax "stands in the way of any *artificial* rise in values," and "a *substantial* and rapidly progressive tax of this sort tends to keep down prices."³ It has been argued, with some show of reason, that a periodic levy, say every ten years (in a direct form), would avoid the question of special retention.

Mr. J. A. Hobson's comment upon this "shifting-back" question is disappointing. He holds that the fact of having investment in land having proceeded on an equality with other forms of investment for so long need not preclude the special taxation of future increments, "for if it be contended that *part or the whole of such future* rises of value has already been anticipated, . . . and that it would be unjust to take from existing owners any part of the prospective values, . . . we can only reply that this cannot be held to be a *proper* interpretation of the conditions under which reasonable men have recently made contracts for the sale or annual leasing of land."⁴ He explains that it is not "proper," because the proposal to raise public revenue from increments in land value has figured so prominently in practical politics of all progressive parties, that it may "fairly be presumed that the probability of such special taxation has been taken into account in recent negotiations for sale or leasing. . . . If I have paid £900 when I should have paid £1,000 but for the probability that special taxation would shortly be placed upon it, I can have no

¹ *Vide* "Unearned Increment Taxation in Britain and Germany—a Comparison,"—in the *Local Government Review*, December, 1912.

² *Vide* "Ueber die Reform der Grundsteuern in Grossbritannien und Irland," in *Conrad's Jahrbücher für Nationalökonomie und Statistik*, July, 1912, by the present writer.

³ *Quarterly Journal of Economics*, Vol. xx., p. 103.

⁴ *The Industrial System*, p. 226.

ground for complaint if this probability is converted into actuality." He disposes of the shifting-back difficulty by shifting it back further! You have only to talk about a tax for a time before it is imposed to deprive it of all sting when it comes into force! And if there is any injustice, it is not the doers and legislators, but the talkers and propagandists who work it. Mr. Hobson does not deal with any allowance for interest as a method of reducing the difficulty, so that the full force of a tax on the British method has to be covered by his "talk about it and smother it up" doctrine of incidence, and at the General Election of 1906 the burden of the tax of 1909-10 on future increment was borne once and for all! Throughout this paper we are not really concerned with the effects of apprehension upon market values, which should not be confused with the mathematical disposal of a known burden, but only with the possibility in theory and practice of shifting back a tax upon true increment or windfall.

We have assumed up to this point that an adequate allowance for interest is being made, and that otherwise the incidence of the tax must be partly on present values. But this question of interest as a proper and fair allowance must not be dismissed too lightly. Like every other feature of an increment tax, it must be studied in relation to the *other elements of existing taxation*.

"The proposition to exempt a certain sum for interest brings in at once important features, nearly always overlooked. The very sum exempted is an accumulated interest which will thus have borne no tax at all, *income* or otherwise, and real property is virtually the only form of capital (not dependent upon the collector's instinct) in which a man can let his interest accumulate without bearing tax thereon annually. . . . A man who had bought a property for £1,000, and sold it for £1,500, has hitherto escaped income tax, because it was a "capital" increase; now when it is said: "You have a capital increase suitable for taxation," if he pleads that it is not capital, but merely interest (deferred), he is back into the arms of the income tax. The problem of scheming a tax on future social values without affecting *any* present values at all (as distinct from existing contracts) is well-nigh insoluble, because there must be brought in a kind of substitute for an income tax on an interest previously free, and that can hardly be done without affecting the present capital value of the source yielding that interest."¹ This objection to the interest allowance has never been answered. Of course,

¹ *Vide* ECONOMIC JOURNAL, March, 1911, "Land Valuation and Rating Reform by the present writer.

directly we cease to tax or rate a property on its present income value (and, in the case of a vacant site, that is *nil*), and begin to tax on a percentage of the capital value, the objection fails. This class of accumulated interest has too long been free from all taxation, and if it is now reached by a non-interest increment system, there can be no real hardship except possibly in the rate, 4s. in the £ instead of 1s. 2d. income tax. But even then, the escape from rates, so far as they are levied on a faculty principle, serves to show that the new taxation on this class of income is not excessive. Any burden falling upon the present owners through this system should not be put to the credit of a true increment tax, but must be regarded as due to the rectification of an anomaly in the income-tax system, and as just similar to what would have taken place had this favoured form of property been brought within the income-tax net by legislation.

So we reach the conclusion that an increment duty on the British model comprises two elements: one, a legitimate extension of the income tax to a class of annual interest hitherto free, and the other a true tax upon "windfalls." The first, *in so far as it is not covered by the 10 per cent. allowance* (and such cases will be mainly restricted to unused sites), is shifted back, as the rectification of a differential favour, to present holders; and the second, the true increment tax, is hardly "shiftable" at all.

J. C. STAMP

CONTRIBUTIONS TO THE THEORY OF RAILWAY RATES.—IV.¹

DIGRESSION ON PROFESSOR PIGOU'S THEORIES.

RESUMING my attempt to construct an abstract theory of railway economics, I find the ground preoccupied. My incipient constructions are dominated by a new and imposing edifice which has arisen in their neighbourhood. The builder thereof is one who lays his foundations very deep; and it may well happen that in doing so he may have caused the ground to give way from under a neighbouring structure. It is possible also that his building may afford support to that of a neighbour after the manner of a buttress. These fears and hopes are excited by the chapters on monopoly and railway rates in Professor Pigou's *Wealth and Welfare*. I have already² pointed out the importance of this work as a whole. I think it necessary now to consider in greater detail those parts of the work which bear on subjects handled in the preceding sections of the present study and in the earlier paper³ on which those sections are partly based. I follow an order of topics suggested by the arrangement of the said sections.

Limits of State Intervention.—There occurs first the question, What are the limits of a study which purports to lead by way of the theory of monopoly value up to the regulation of railways by Government.⁴ I had defined the objects of the study as "public works characterised by monopoly of such a kind as to justify the intervention of the State." What that kind might be I suggested by reference to M. Colson, who distinguishes those works which have need of *land* in so special a degree as to call for the inter-

¹ See *ECONOMIC JOURNAL* for September and December, 1911, and June, 1912.

² *ECONOMIC JOURNAL*, Vol. xiii., p. 62.

³ "Applications of Probabilities to Economics," *ECONOMIC JOURNAL*, June and September, 1910.

⁴ According to the plan proposed at the outset of this study, *ECONOMIC JOURNAL*, Vol. xxi., pp. 346-9.

vention of Government.¹ On considering Professor Pigou's theories, cited below, I am disposed to attach less importance, in pure theory at least, than I did to the limitation of land. Still, I should not venture to describe as erroneous or imaginary a distinction sanctioned by high authorities.²

Graphical Representation of Cost.—Under my first heading I sought to appreciate the importance in railway economics of that much-talked-of attribute "increasing returns." The relations between cost of production and quantity produced present such a variety of aspects as almost to defy the subtlety of speech, even when rendered precise by mathematical conceptions. Similar shapes designated by the same name, a supply-curve, are often employed in a misleading manner with reference to quite different circumstances. For instance, it may make all the difference whether we are considering (*a*) long periods, or (*α*) short ones; (*b*) the presence, or (*β*) the absence, of what Dr. Marshall calls "external economies" (*c*) collective cost, or (*γ*) that which pertains to a single individual (or constituent group); (*d*) the *régime* of competition, or (*δ*) that of monopoly; (*e*) the remuneration of the entrepreneur as included in the cost of production, or (*ε*) as a residue distinguished from the entrepreneur's expenditure. There is a less mistakeable division between (*z*) the use of one of the co-ordinates to represent *price*, the construction which Dr. Marshall has made familiar, and (*ζ*) the use of one co-ordinate to represent the total amount of money demanded in exchange for the amount of product represented by the other co-ordinate.³ There is a certain correlation between (corresponding members of) several of these dichotomies; and it is therefore the less surprising that throughout Professor Pigou should have adopted the positive and I the negative attribute. The supply-curves which he employs are mostly of the type *abcdez*; while mine are primarily of the type *αβγδεζ*. It is not to be expected, therefore, that there should be a close similarity between our representations. But I am concerned to show that there is no essential discrepancy.

For the purpose of instituting a comparison I construct in Fig. 1 a supply-curve of the type above distinguished as *z*; and

¹ See Colson, *Cours d'Economie Politique*; (deuxième édition), liv. i., p. 148, liv. iv., p. 200, and liv. vi. *passim*.

² Cp. Pigou, *op. cit.*, pp. 246-7.

³ The *ζ* system is used by Mr. Flux in the *ECONOMIC JOURNAL*, Vol. xv., and commented on by the present writer, Vol. xvii. It is not quite identical with, being less general than, Dr. Marshall's curves of International Trade referred to in the *ECONOMIC JOURNAL*, Vol. xv., p. 69 and Vol. xviii, p. 541 *et seq.*

I transfer here a curve of the type § which I have employed in my Section I.¹

For the present purpose it is not necessary to consider the simplest and most elementary transactions to which such curves may pertain: such transactions as international trade between two imaginary islands, or the bargain between ideal hunters of two different types—say white employers and black employees—

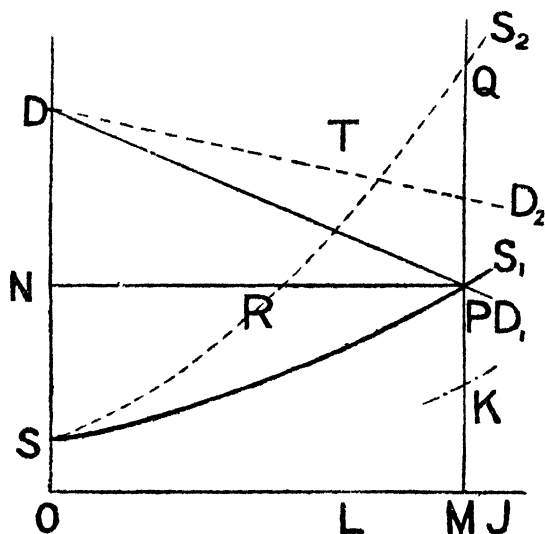


FIG. 1.

In Fig. 1 SS_2 is a parabola of which the equation is

$$Y = \frac{1}{4} (x + a)^2$$

whence

$$yx = \int_0^x Y dx = \frac{1}{4} (a^2x + ax^2 + \frac{1}{3}x^3); \quad y = \frac{1}{4} (a^2 + ax + \frac{1}{3}x^2).$$

The unit in which x is measured is a (=one inch). Accordingly $MQ = 2.25$ inches; $MP = 1\frac{1}{2}$ inch. The demand-curve DD_1 passes through D at the vertical distance of 2 inches from O , and intersects the supply-curve at P . DD_1 is a right line of which the slope relatively to the vertical is $2/4\frac{1}{2}$. Accordingly the slope of the curve of marginal supply prices DD_2 is twice that slope. DD_2 intersects SS_2 at T ; nearer the origin than P as might be expected, the law of diminishing returns acting.

as to the distribution of their joint quarry.² The curves of type ϵ proper to such conceptions are not considered here. Let us rather suppose SS_1 as representing, agreeably to common usage, the amount x of, say, agricultural produce offered by a set of farmers using implements, employing workmen, and paying rent. If the increase of produce did not involve any sensible (additional)

¹ See p. 352, Vol. xxi., Fig. 1.

² Compare *Quarterly Journal of Economics* on the "Theory of Distribution," 1904.

pressure on the soil this supply-curve would be, suppose, a horizontal line. But suppose that there is such a pressure; and let it first be of such a kind as merely to necessitate deeper ploughing and digging on the part of each cultivator, without otherwise modifying the conditions of cultivation—in short, without *negative* “external economies.” The collective supply-curve SS_1 would then be obtained by simply adding up the amounts of product offered by each individual farmer at any assigned price. The “general” expenses consisting, suppose, entirely of rent, would be represented by the area SNP ; while prime costs are represented by $OSPM$.

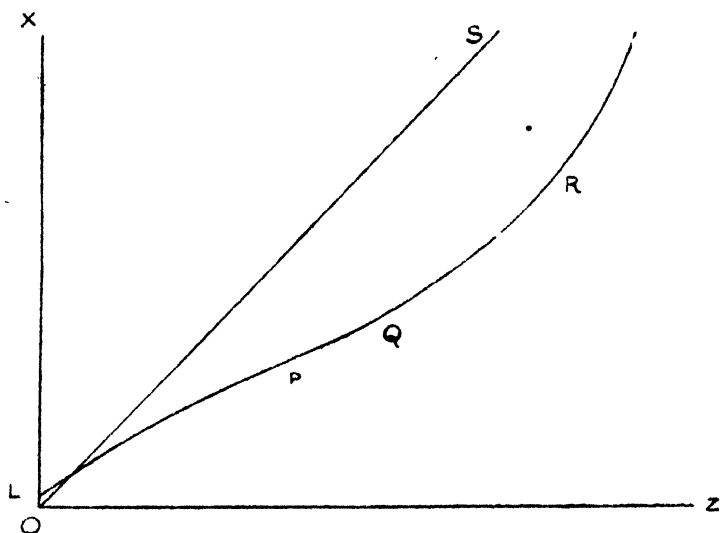


FIG. 2.

Here it may be well to remind the reader that there is something *arbitrary* or *dependent on unessential circumstances* in the distinction between “prime” and “general” as we have used the terms. Suppose that labourers could be changed only after long notice, and that labour and machinery were readjusted less frequently than the amount of land variable in small parcels with imaginary facility; on such a supposition the rent might be regarded as prime cost, the other expenses as general. The same ordinate MP might now represent the price of that increment of land which corresponds to an increment of produce. More generally it is proper to regard the price PM as made up of two (in general, more) portions, MK and KP , corresponding respectively to the values (at the prevailing prices of the factors of

production) of that increment of capital and that increment of land which the entrepreneur would take on if free to distribute an assigned increment of resources between the two uses.¹ Even where this freedom does not exist in reality, one factor of production as compared with the other varying *per saltum*, there is some theoretical advantage with a view to the problems which are before us in realising that the price of the product is theoretically not affected by the circumstance that the agents of production are or are not varied continuously.

Professor Pigou improves the familiar construction of the supply-curve by the addition of a new curve, that of "marginal supply prices," SS_2 in our Fig. 1. This curve is thus related to SS_1 . If the ordinate at any point of the abscissa, M , intersects SS_1 at P and SS_2 at Q , the area $OMQS$ is equal to the area $OMPN$.² But the area $OMPN$ represents the total expenses incident to the production of the quantity OM ; inclusive of rent (the area PSN) and of entrepreneur's remuneration, which by our convention is included in the area $OSPM$. Accordingly, the line MQ —or, more exactly, the little rectangle of which that line is the height and a (small) unit of produce is the base—represents the addition to the total cost incident to the production of an additional unit.

But, it will be asked, is not this the very definition of "marginal cost"? And have we not just seen that—however we manipulate the distinction between prime and general cost—the marginal cost incident to an increment of produce is OP ? How then can that incremental cost be OQ ? The answer is that both statements are true. The same predicate "marginal increment of cost" is truly coupled both with MP and with MQ ; if in the one proposition it is understood *simpliciter*, in the other proposition as the logicians say, *secundum quid*. For MP is the increment of cost consequent on an increment of production, the cost of production of the units of commodity other than this increment being supposed constant. That is, MP is the marginal cost from the point of view of the entrepreneur producing a small part of the aggregate output in a *régime* of competition. But MQ is the increment of cost consequent on an increment of production,

¹ See Pareto, *Cours d'Economie Politique*, § 718 (referring to § 100-1); and compare Marshall's analysis of the "supply price of a knife as the sum of the supply prices of its blade and handle."—*Principles of Economics*, Book V., Ch. VI., § 1; and his note on marginal product (with reference to J. A. Hobson's theories), *op. cit.*, p. 393, ed. 6.

² In symbols, if y is the ordinate of SS_1 , Y that of SS_2 ,

$$\int_0^x Y dx = xy.$$

the price of the produced commodity not being supposed constant.¹ Rather, account being taken of the circumstance that the price is such that if a sale could be effected at that price the expenses of production would just be covered, that covering price changes (in the case supposed, increases) with the amount produced. Accordingly, MQ might be described as the marginal increment of cost from the point of view of a monopolist.

In this connection mention may be made of another piece of mechanism due to Professor Pigou: the curve of "marginal demand prices."² The relation of this curve to the ordinary demand-curve may be shown as follows: Let DD_1 be the demand-curve in our figure intersecting the supply-curve at P ; DD_2 the curve of marginal demand prices. If the ordinate, not drawn on the figure, at any point on the abscissa, J , intersects DD_1 at D , and DD_2 at D_2 , the area OJD_1D is equal to the area of the rectangle of which the base is OJ and the height OD_2 .³ But the area OJD_1D represents the total utility, or, in Professor Pareto's less equivocal phrase, "ophelimity" accruing to the customers from the quantity of commodity OJ (on the supposition of their obtaining it *gratis*). The corresponding money value is that which would be realised by a monopolist who practised discrimination of the kind defined by Professor Pigou as "ideal"—a conception which he has happily illustrated by the suggestion of a method whereby a monopolist of this particularly grasping type might conceivably touch the total value in question.⁴ Accordingly, a monopolist of this type would push production up to, but not beyond, the point at which the increment to the said total value is just equal to the increment of total cost, that is, the point at which the curves DD_2 and SS_2 intersect, the point T in the figure, or the point L on the abscissa corresponding thereto. A nobler use of the two new curves will presently appear.

¹ Let x ($= OM$) be the produce, p ($= MP$) the supply-price, or cost of production per unit, xp ($= OMPN = OMQS$) the total cost. Then $MP' = \left(\frac{d}{dx}\right)xp$ (p being treated as constant) $= p$; $MQ = \frac{d}{dx}xp$ (the complete differential) $= p + x\frac{dp}{dx}$.

² See ECONOMIC JOURNAL, Vol. x., "Producers' and Consumers' Surplus."

³ In symbols (corresponding to those used above with reference to supply) let y' be the ordinate of DD_1 Y that of DD_2 . Then

$$\int_0^x y' dx = Y'x.$$

In the figure, DD_1 is intended to be a straight line inclined to the axis of Y at an angle with tangent 1. Accordingly DD_2 is inclined to the vertical at an angle with twice that tangent.

⁴ ECONOMIC JOURNAL, Vol. xiv., p. 391; *Wealth and Welfare*, p. 203. See also, with reference to this kind of monopoly, ECONOMIC JOURNAL, Vol. xx., p. 453.

The moderately mathematical reader will have no difficulty in translating these constructions into the form which I have employed, above labelled ζ . The curve S_1 in Fig. 1 might be supposed to correspond to the curve PQR in Fig. 2, if we do not attend to the initial convex part of the latter curve, rather suppose it to start from O and be convex (to OZ) throughout. The abscissa OZ in Fig. 2 corresponding to OX in Fig. 1, the ordinate in Fig. 2 (e.g., a perpendicular let fall from R on OZ —not drawn in the figure) would correspond to the area $OMPS$ in Fig. 1. What line then in Fig. 2 corresponds to the area $OMQS$ in Fig. 1? It might be the ordinate of a certain curve derived from $OPQR$ in Fig. 2 which I have indicated as pertaining to the régime of competition,¹ the collective supply-curve (*Gesamtangebotscurve*) of Auspitz and Lieben.² Or rather, as we are not here explicitly representing the profits of the entrepreneur as varying with the amount of product, it is proper to take our curve PQR as the cost-curve (*Gesamtkostencurve*) with the interpretation (not that of Auspitz and Lieben) that the intersection of any right line drawn through the origin with that curve designates the amount offered at the price represented by the inclination of the line.³ With this interpretation the vertical distance defined by Auspitz and Lieben³ as the measure of Collective Utility (*Gemeinnutzen*) corresponds to the area DTS in our Figure 1.

I have given another construction in which the factors of production—in the case before us “capital” (=labour+implements+waiting) and land—appear as co-ordinates.⁴ Say the amount of the former factor is measured along the bottom of the page from the left corner, while the other factor is measured from the same point along the left side of the page. The cost κ of any two quantities of the factors (at prices supposed to be given) is measured downwards on an ordinate perpendicular to the plane of the paper. The corresponding amount of produce multiplied by its price (which the monopolist is free to vary), say ζ less by the cost κ , gives z , the quantity, which it is the object of the monopolist to maximise. The construction is such that z

¹ Defined by me, *ECONOMIC JOURNAL*, Vol. xxi., p. 358, and more fully by Auspitz and Lieben in their *Theorie des Preises*, p. 13.

² The construction ζ thus interpreted will I think correspond to that which Mr. Flux has employed in his paper on “Improvements and Rentability” (*ECONOMIC JOURNAL*, Vol. xv); it being observed that he takes cost for the abscissa and product for the ordinate, as in our Figure 1 B of Section 2 (*ECONOMIC JOURNAL*, Vol. xx., p. 35).

³ *Op. cit.*, p. 370.

⁴ See *ECONOMIC JOURNAL*, Vol. xi., p. 365.

is measured upwards from the plane of the paper. In seeking this maximum the monopolist entrepreneur will describe a path on the plane of xy ; which will be a broken sort of path in case one of the factors, such as land, comparatively with the other is varied *per saltum*. This construction is applicable to a *régime* of competition with a little modification. We may suppose different entrepreneurs to move by different paths in seeking each the maximum of the z pertaining to him. The height of the average z may be regarded as small or null; rather in deference to fact than as required by theory.¹ Each entrepreneur ever strives to make his z as great as possible. So each golfer in every match strives to make the difference between his score and "bogey" augmented by his handicap, as small as possible; though on an average, in well regulated golf links, probably the difference between the score and (bogey + handicap) is zero, or rather—having regard to very bad players—on the wrong side of zero.

So far we have supposed the curve of marginal supply prices to be ascending. Now let us consider a descending curve of the sort such as SB in Fig. 3 (see p. 214). If we retain the supposition that the collective supply-curve is formed by simple addition from the dispositions of the individual entrepreneurs, the supply-curve SS' derived from SB (according to the rule above given) will be insignificant in a *régime* of competition. For it represents only that amount of production which at any assigned price affords to entrepreneurs a *minimum* of profit—a position of unstable equilibrium. But in a *régime* of monopoly it might well happen in the case represented that production might be stable at any point between O and O' .²

In order that the descending supply-curve may be significant in a *régime* of competition it must receive a different interpretation. The height MP now denotes as before the price at which the quantity OM is evoked³ in a state of industry adapted to that scale of production. But what corresponds to the curve SS_1 of Fig. 1 in our first example, considered as representing the sum of the amounts offered by each entrepreneur at any (one) assigned price, is a quite different curve from SS_1 of Fig. 3, an ascending curve, the "short-period" supply-curve. It is here represented by a right line—in the neighbourhood at least

¹ On the theoretical point, see *Scientia*, Vol. vii. (1910), p. 92, and references there given. As to the facts almost all that is known I believe is well presented by Ashley in the *ECONOMIC JOURNAL*, Vol. xx., p. 350.

² As noticed (with reference to the curve there employed) *ECONOMIC JOURNAL*, Vol. xxi., p. 361.

³ Defined more exactly by Professor Pigou, *ECONOMIC JOURNAL*, Vol. x., p. 358.

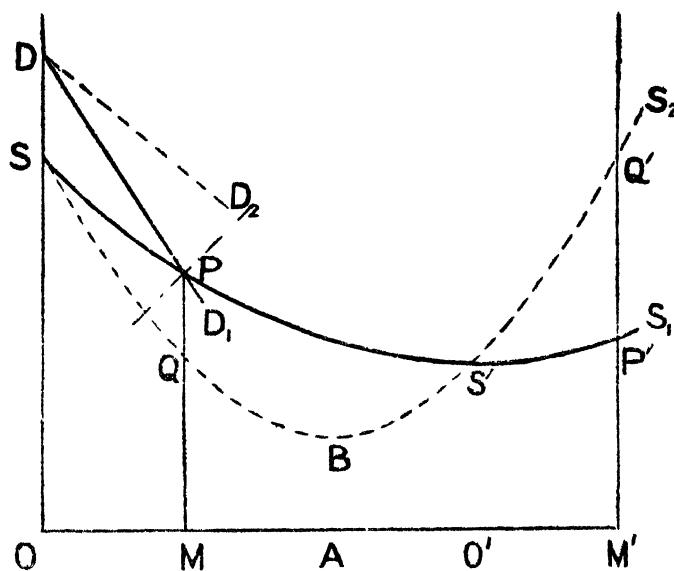


FIG. 3.

In Fig. 3 the curve of marginal supply prices $SBS'S_2$ is a parabola with vertical axis and apse at B . If $AB = b$, $OA = 2a$, $OS = 2a^2 + b$; the equation of the curve referred to O as origin is

$$Y = b + \frac{1}{2}(x - 2a)^2.$$

From this the expression for y the ordinate of the supply-curve is obtained by putting

$$y = \int_0^x Y dx = bx + \frac{1}{6}x^3 - ax^2 + 2a^2x.$$

Whence $y = b + 2a^2 - ax + \frac{1}{6}x^2$. There is a minimum of y at the point of intersection S' between the two curves. This property is general; since

$$1 - \frac{d}{dx}y = y + x \frac{dy}{dx};$$

and accordingly when $Y = y$, $\frac{dy}{dx} = 0$. In order to construct a simple system of short period supply curves, formed by right lines with a positive slope of 45° (Cp. *Economic Journal*, Vol. xv., p. 68), put

$$y \equiv x + \psi(x);$$

where $\psi(x) = b + 2a^2 - ax + \frac{1}{6}x^2 - x$. Then for the equation to any line of the family, we have

$$y = x + \psi(x'),$$

where x' is the abscissa of any point on the curve $SS'S_1$. For instance, when $x' = a (= OM)$, $\psi(x') = b + \frac{1}{6}a^2 - a$; and accordingly the equation of the corresponding line is

$$y - (b + \frac{1}{6}a^2) = x - a;$$

the equation of a line passing through P , the broken line in Fig. 3. In the figure the unit a is taken as three-quarters of an inch, and b is taken to be half an inch. Accordingly, $OS (= M'Q') = 2$ inches. The demand-curve is a right DD_1 starting from the point D which is at the height 2.5 above the origin. This demand-curve intersects the supply-curve at P of which the height is $1\frac{5}{6}$ inches. The slope of DD_1 with reference to the vertical is $\frac{3}{4}$. Accordingly that of DD_2 is $\frac{1}{4}$. The intersection of DD_2 with SS_2 (not shown in the figure) is at a greater horizontal distance than P from the origin; as might be expected, the law of increasing returns acting.

of any point P on the supply-curve, for it may be supposed lower down to twist and cut the axis OY near O . The construction is explained in my review of Mr. Cunynghame's *Geometrical Political Economy* in the *ECONOMIC JOURNAL* for 1905 (pp. 66-68). For the sake of convenience I virtually made the assumption which Professor Pigou has made on perhaps other grounds, that "the price at which anybody supplies a given quantity of commodity is made up by the addition of two parts, one depending on the quantity that the person himself supplies, and the other upon the quantity that the whole market collectively supplies."¹ The ascending part of the supply-curve SS_1 is similarly to be interpreted, and not as the curve SS_1 in Fig. 1.

As in the case represented by Fig. 1 we may here derive from the demand-curve DD_1 the curve of marginal demand prices DD_2 . As there, the intersection of DD_2 with SS_2 determines the maximum of Producers' + Consumers' Surplus, not subject to the condition that prices are assigned by competition. It might be described as the aim of a monopolist, but now a monopolist of a very peculiar kind, a monarch of enlightened benevolence who, surveying the vast plexus of transactions throughout the community, would wish the terms to be altered in such wise as to increase (the money-measure of) the aggregate of satisfactions. This maximum of satisfaction thus aimed at transcends that which is attained by *laissez-faire*, the $H - V$ of Dr. Marshall's deep mathematical note xiv. The latter might be compared to the state of health and efficiency resulting from the practice of what is natural and habitual in diet and therapeutics. An arbitrary departure from that practice, based on a mere association of ideas, like the mediæval *similia similibus*, may be compared to crude Protectionism, as likely to do harm. But we are not thereby forbidden to depart from what is called natural, in a direction pointed out by science. One of the directions in which it may prove possible to improve on *laissez-faire* is afforded by Professor Pigou's doctrine supplementing that of Dr. Marshall with respect to the "limitations of the abstract doctrine of maximum satisfaction."² The new and less abstract maximum, $H' - V'$, as we may call it, transcends the state of unrestricted competition of which it is sometimes said by mathematical hedonists, and implied by practical free traders, that "this régime

¹ Pigou, *ECONOMIC JOURNAL*, Vol. xiii., p. 21; the reference to "demand" there made being omitted to suit my context.

² *Principles of Economics*, Book V., Ch. xiii., p. 467 *et seq.*; referred to by Professor Pigou in the *ECONOMIC JOURNAL*, Vol. xi., p. 366.

realises the maximum of satisfaction and the minimum of sacrifice for each of the co-exchangists."¹ To advance some way in the direction of $H' - V'$ may be better than to have attained $H - V$;² just as you are higher when half-way up Mont Blanc than on the top of Snowdon.

Increasing Returns.—I cannot claim to have anticipated this sublime use of the new curves.³ It is relevant here as bearing on a question which I have particularly considered, the signification of the term "increasing returns." In view of much tedious discussion in recent literature I sought to fix the meaning of that evasive term. I distinguished as "primary" and "secondary" two definitions respectively importing that an added dose of productive power increases (1) the marginal, or (2) the average produce. Among other considerations in favour of the primary definition, I remarked: "When we contemplate the working of a competitive *régime* as bearing on the interest of the community, from the point of view of the philosophic statesman, then we welcome the phenomenon of Increasing Return (or deprecate its contrary) as tending to (or from) some quantity which it is proposed to maximise. But the criterion of such a maximum is analogous to our *primary* conception."⁴ Now the point of view of this philosophic statesman is exactly that of the benevolent monarch whom we have just imagined—except that the view of the latter is assisted by the new implement which has just been described. Accordingly, I claim Professor Pigou's authority for my *primary* definition. To be sure, the denotation is generally the same for the two connotations; but not always, as we may see in Fig. 3, where the tract (of produce) AO' presents decreasing returns according to the first definition, but increasing according

¹ I quote from *Histoire des doctrines Economiques* (p. 636, ed. 2) of Gide and Rist, who are transcribing faithfully enough the doctrines of the mathematical economists.

² Compare Pigou, *Wealth and Welfare*, p. 106.

³ The system of co-ordinates here called ζ (above, p. 207) may be adapted as I have indicated (*Economic Journal*, Vol. xi., p. 359) to the system of long-period supply curve with intersecting short-period curves, proper to increasing returns in a competitive *régime*. The area DTS in Figs. 1 and 3 would then correspond to a line in a modified form of Fig. 2, the greatest vertical distance between two curves which are modifications of Auspitz and Lieben's Collective Cost and Collective Utility Curves; the distance measuring the total utility called by them *Gemeinnutzen*; (*op. cit.*, p. 370). But neither they, I think, nor I proposed to employ this conception for the purpose of contemplating the ideally best distribution of resources; for instance, that as between two classes of industries of the types pertaining to our Fig. 1 and Fig. 3 (Diminishing and Increasing Returns) it would be theoretically advantageous to diminish the output determined by *laissez-faire* in the former case and to increase it in the latter.

⁴ *Economic Journal*, Vol. xi., p. 359.

to the second. My interpretation is confirmed by Professor Pigou's use of terms in the important passage, too long to quote in full, in *Wealth and Welfare*,¹ which resumes "the general analysis of distribution developed by Dr. Marshall." The "*law of diminishing returns to individual factors of production*," it is there said, "states that the increment of product due to the increase by a unit of any factor of production in any industrial field will in general be smaller, other things remaining the same, the greater is the supply of that factor already employed there." If I mistake not, a typical instance of this doctrine is afforded by our introductory lemma; when the land being considered as constant the "capital" laid out thereon is increased. As shown by the rise of the curve SS_1 (considered as a short-period supply-curve) in Fig. 1, the increment of product due to the increase by a unit of "capital" will be smaller (in the neighbourhood at least of the point of equilibrium) the greater the supply of that factor already employed. Assuredly, the law of diminishing returns which such a factor fulfils is diminishing returns in the primary sense. Professor Pigou evidently treats that as *the* sense of the term when he does not even notice that in the same circumstances *increasing* returns in the *secondary* sense *must* prevail—initially. Yet the term "increasing returns" is largely employed in such a case by the leading American writers on railway and general economics. One whom I shall often quote as not only the latest but also one of the greatest of them, thus expresses himself: "The law originates primarily in the fixed conditions attaching to the heavy capital investment—the fact, namely, that fixed charges up to a given point of saturation tend to remain constant absolutely: but become proportionately less as the volume of business expands. From this fact, therefore, rather than because of any marked economies of large-scale production, may it be affirmed that railroads offer a notable example of the law of increasing returns."² It is in virtue of this fact that "a railroad theoretically presents a clear example of an industry subject to the law of increasing returns."³

Joint Cost.—In the case of another important term, Joint Supply (and its synonyms), I am disposed to accept Professor Pigou's usage for the primary definition, while admitting as secondary the definitions sanctioned by the authority of railway experts. In the first section of this study I have given a general definition covering the cases included by the American writers;

¹ Part II., Ch. II., § 3.

² W. Z. Ripley, *Railroads* (1913), p. 99.

³ *Op. cit.*, p. 71 *et seq.* Cp. *ECONOMIC JOURNAL*, Vol. xi., p. 370, last par.

but I place in a special category the cases excluded by Professor Pigou; for instance, "where the Joint Cost depends upon a quantity such as total weight or volume which is the sum of two or more items each pertaining to one of the joint products."¹ My typical example, clover and honey, fulfils, I think, Professor Pigou's definition that "two products are supplied jointly when a unit of investment expended upon increasing the normal output of one *necessarily* increases that of the other also."² This is not evident at first sight; for, of course, apiculture without clover seed would not result in an output of clover. Professor Taussig makes a very natural criticism when referring to Professor Pigou's example of joint cost, back loading, he remarks: "Now in back loading, as in other cases where 'discriminating' rates are made, it cannot be said that a railroad '*necessarily*' (I follow Professor Pigou's example in italicising the word) puts on the market a supply of one kind of service when it supplies another kind. There are always some separable expenses: For example, in the case of back loading there are the terminal expenses and the extra cost of hauling a loaded train over that of an empty one."³ Ninety-nine out of a hundred critics would probably endorse this criticism. And they would be justified in so far as ninety-nine out of a hundred writers might be supposed to use the phrase "increasing the normal output" as meaning no more than "increasing the output." But it is not to be supposed that the disciple and successor of Dr. Marshall employs the term "normal" as a merely decorative epithet. Professor Pigou has, I think, all along very properly used "output" as the output of something that is demanded, and has implied that the demand is not of an exceptional, perfectly inelastic, character. It follows that the output necessarily tends to be, and we may therefore say normally is, increased by the diminution of its marginal cost. Now a diminution in the marginal cost of producing a commodity such as the transportation of a back load is caused when new trains are put on—not merely to meet a temporary emergency, but as a permanent arrangement—to meet an increased *direct* traffic. But the marginal cost of an article transported by a returning "empty" is not similarly increased by another item in the back load. These statements are not affected by the existence of "terminal expenses" and the like.

¹ ECONOMIC JOURNAL, Vol. xi., p. 560. Compare the representation of Joint Cost at p. 460 of Vol. x.

² *Wealth and Welfare*, p. 215.

³ *Quarterly Journal of Economics*, Vol. xxvii. (1913), p. 380.

It were to be wished; perhaps, that Professor Pigou had expressed himself in terms less liable to misconstruction. But, in fact, it would not be easy to give a more unequivocal definition without making it either very long or very technical. For an explicit description which, I think, nearly covers the instances contemplated by Professor Pigou I again quote Professor Ripley :—

“Railroad expenditures, as Taussig clearly pointed out a number of years ago, afford a prime illustration of the production of several commodities by a single great plant simultaneously at joint and indistinguishable cost. The classical economists illustrated this law by the joint production of wool and mutton and of gas and coke. In both of these instances neither commodity could conceivably be produced alone. . . . The law of joint cost with reference to the production of transportation is somewhat different. Compare, for instance, the carriage by a railroad of thousands of passengers and different commodities in every direction, under varying conditions, singly or wholesale, slowly or by express, over a given set of rails every day; with the operation of a great refinery, producing simultaneously kerosene, gasoline lubricating oils, and greases, as well as various odd chemicals. Both are examples of production at joint cost, but with various important contrasts. In the refinery all the costs are joint. All the processes are interlocked. Every increase in the output of kerosene produces *pari passu* an increase of the other commodities. On the railroad not all, but only a part of the costs are joint, in such manner as has been shown. For, from the joint portion of its plant—roadway rails and locomotives—the railroad may produce transportation of different sorts quite independently. It may choose to especially cultivate its passenger traffic or cotton or coal business.”¹

The “important contrasts” so clearly exhibited by Professor Ripley would not be materially affected if the increase of other commodities “*pari passu*” with kerosene required some special or separable expense: just as the output of copperas as a joint product with wire, which Professor Pigou by implication instances as a genuine case of joint supply,² requires some special cost for the erection of necessary sheds.

A short but technical definition may be based on the form of the (mathematical) *function* which expresses the relation between assigned quantities of several commodities, x , y , u , v , w , &c., and z , the cost of producing the whole set. Materials for the construction of such a definition may be found on a former page.³ There may be some doubt as to where the line should be drawn which separates the primary from the secondary definition of Joint Cost. But there can be no doubt that it should be drawn

¹ *Op. cit.*, p. 67.

² *Wealth and Welfare*, p. 229, note 1.

³ *ECONOMIC JOURNAL*, Vol. xi, p. 560

well above the case in which the total cost z is related to the quantities of the products simply as a *function* of their *sum*: that is, in the manner below indicated by a quotation from Professor Pigou. I apply the term "sum" to the addition of adjusted units (like those below supposed for pease and beans), ordinary (*e.g.*, avoidupois) units each multiplied by a proper coefficient corresponding to special costs.¹ The ground of the distinction lies herein, I think, that in the case of joint cost proper we cannot, and in other cases we can (theoretically), *predict* the relative charges for different commodities without regard to the demand for other commodities.

"*Cost of Service*" Principle.—But the question what is the proper or primary definition of the term Joint Cost is itself of secondary interest. Professor Pigou will perhaps allow the Americans to have their terminology if they will concede to him his propositions. The main issue, of far deeper importance than the definition of a word, is whether Professor Pigou is right in concluding that, in the regulation of railways, discrimination or the "value of service" principle should, after an initial—probably brief—stage, give place to the "cost of service" principle.²

First appearances, it must be admitted, are against Professor Pigou. Using terms in a strange sense, and accusing distinguished economists of common fallacies, he propounds a thesis contradicting the doctrine of the highest authorities on railway

¹ The bearing of Joint Cost proper on the power of predicting competitive price may be illustrated by supposing that normal equilibrium, after having been reached, is disturbed by a change in demand for each of two commodities; and observing the effect according as Joint Cost proper is absent or present. Let the cost, $z = F(T)$, where (1) $T = ax + by + cu + \dots$, and $x, y, u \dots$ are assigned quantities of the commodities designated $X, Y, U \dots$. Then the respective prices, in competitive equilibrium, of the commodities X, Y, U are $F'(T)a, F'(T)b, F'(T)c \dots$. Now let a change in the demand for X and Y occur. Then in general there will be a change in volume affecting cost. "Cost is unknown until volume is ascertained," as Professor Ripley well says (*loc. cit.*). But in the case before us the effect on price may well be small, if there are many commodities; the new set of prices being $F'(T + \Delta T)a, F'(T + \Delta T)b \dots$. At any rate the *relative* prices, the ratios in which the total charge is distributed among the different commodities, are unchanged. (Compare Marshall, *Principles of Economics*, Mathematical Note, xvii., par. 1). Next (2) let $T = ax + 2hxy + by + cu + \dots$. Now when x and y are "interlocked," to borrow a phrase from Professor Ripley, the prices are no longer as independent of the quantities as before. The new price of X is now $F'(T + \Delta T)[(a + 2h(y + \Delta y))]$ and the new price of Y is $F'(T + \Delta T)[a + 2h(x + \Delta x)]$. It is evident that the prediction of the prices from the costs is not such a simple affair as before. Once more (3) let $T = ax^2 + by^2 + \dots$, or more generally $T = \phi(x) + \psi(y) + \chi(u)$. The disturbed price of each commodity will now involve, in a more disturbing manner than in case (1), the quantity of that commodity. But it will not do so in the same way as in (2). It is a nice question whether this case should be described as Joint Cost proper.

² *Wealth and Welfare*, p. 234, and context.

economics. What though in power of mathematical reasoning he wields a bow which few can bend! Does he not aim with it at the clouds? An airship, indeed, would seem to be just the object which he has in view. For his refined reasonings would be admittedly sound if all transportation was effected by flying-machines. For then presumably each flying-machine might be worked to the full for one kind of traffic only. The case would in this respect resemble that of those railways for which discrimination is not claimed, where "each has in the main its own expenses of operation as well as its own road-bed and other plant."¹ But, as it is, "the freight service of a railway comprises the carriage of all kinds of goods simultaneously from the most valuable high-priced commodities, such as silk and satins, down to lumber, coal, cement, and even sand."² The attribute of limitation in the supply of land, rejected by Professor Pigou,³ seems now to rise up against him. For it is partly on account of this limitation that a plurality of railways each worked to the full for one kind of traffic is unthinkable.

Such are the first appearances. But on reflection, in the light of the principles which have been above recalled, it will be discerned that if the flying-machines are perfectly competitive, no essential difference is introduced by their having mixed loads; supposing, with Professor Pigou, that "a unit of investment is responsible either for x units of one kind and y units of the other, or for $(x+h)$ units of the first kind and no units of the second, or for no units of the first kind and $(y+k)$ units of the second."⁴ Thus, in our introductory lemma,⁵ suppose that the produce in wheat is destined for different kinds of cakes and bread. The price of a unit of wheat for different destinations would still be the same. And if the same ground is equally suitable for pease and beans—joint effects in the way of rotation of crops being abstracted—then if the prime costs (in the sense explained) of (properly assigned) units of pease and beans are the same, the same will be the selling price for pease and beans of units (so assigned). The orthodox economist stating this familiar doctrine would not be put off by the affirmation that a great part of the cost was indeterminate, being joint for all the products in large part; that it is impossible to *allocate* the amount proper to each product. This objection might be made to Professor Wieser's

¹ Taussig, *Quarterly Journal of Economics*, Vol. xxvii., p. 379; and *op. p.* 380.

² Ripley, *op. cit.*, p. 169.

³ Above, p. 207.

⁴ *Wealth and Welfare*, p. 218.

⁵ Above, p. 208 *et seq.*

doctrine of "imputation";¹ or to the pretension, censured by Mill, of assigning, in a philosophical sense, the amount due to each of two concurrent causes—like the blades of a pair of scissors. But *this* indeterminateness is quite consistent with the determination of value in exchange—proportioned to marginal cost—in a *régime* of perfect competition. But the prices so determined, according to the received theory, afford a maximum of advantage to producers and consumers. A similar maximum of advantage must be ascribed to the charges for mixed loads which would be adopted by airships conceived as sufficiently numerous to realise perfect competition. Railways, indeed, cannot be conceived so numerous as to bring about that scale of charges through the play of competition; but it is to be believed that maximum advantage would be attained if there could be imposed by authority in this case that proportion of charge to marginal cost which is known in other cases to have that desirable result.

I must confess to have countenanced an erroneous view in this matter. Concerned mainly with monopoly, I incidentally misstated a law of competition. I argued that in general a single undiscriminated price might be replaced by two (or more) discriminated prices with advantage both to the (monopolist) producer and the customer. For any value of monopolistic revenue or any value of customer's benefit assigned at random the maximum of advantage to the other party will be realised not by a unique price, but by discrimination. But I omitted to notice that the case in which the initial unique price (or the assigned amount of advantage to one party) is that which occurs in a *régime* of perfect competition is a particular limiting case of which the statement generally probable is known not to be true. The general reasoning breaks down when we suppose the initial (unique) price of two commodities to be equal to the (equal) marginal cost of each.² In this case if any neighbouring system

¹ Referred to by Marshall, *Principles of Economics*, p. 393 (ed. vi.), and unfavourably reviewed by the present writer in the *Economic Journal*, Vol. iv., p. 281.

² It was shown in a previous paper (*Economic Journal*, Vol. xx., p. 445 *et seq.*) that if b is the undiscriminated monopoly price of two articles (or species of the same article), $b(1 + \eta_1)$ $b(1 + \eta_2)$ are any two discriminating prices in the neighbourhood of b ; then the curve representing that the Customers' Surplus (considered as a function of η_1 and η_2) is constant (the same as what it was when η_1 and η_2 each = 0) and the (likewise interpreted) curve of Constant Producers' Surplus intersect, in such wise that it is in general possible to adopt a system of discriminating prices which will be better both for the producer and the customer than the undiscriminated price b . It is supposed (in the absence of joint cost) that the cost of production is the sum of two costs each a function of (the amount of) one of the products (*loc. cit.*, p. 460); or more generally a function of the sum (or of a linear function) of the quantities produced (above, p. 220). The proposition remains true in general when by b

of discriminating prices be assumed, it will be the interest of one or both parties to return to the unique price.

I subscribe, then, to Professor Pigou's thesis; but with two considerable reservations, pointed out by Professor Pigou himself.

Firstly, if a railway cannot be made to pay with rates and fares assigned on the principle of cost of service, it is better that it should practise discrimination than that it should not exist. More generally, let it be supposed possible to operate the railways of a country so that the marginal cost of each ton-mile is the same. Then the maximum of the type $H - V$ is attained. But it may be better to pursue the type $H' - V'$ by employing discrimination so as to increase the output of transport for which the demand is very extensible, and where the advantages of increasing returns are thereby secured. It might be one of the exceptions to the general rule that there should be equality of "marginal net products" in order to secure maximum satisfaction.¹ No doubt the conditions are *a priori* improbable.² But there is specific evidence of high authority for their existence; so far as we may thus interpret the dicta of the experts, such as "Much of this business is made possible only by special rates adapted to the case in hand. A higher rate . . . would kill the business." "To compel each of these classes of goods [silk and satin, . . . cement, and even sand] to bear its proportionate share of the cost of carriage would at once preclude the possibility of transporting low-priced goods at all."³ The testimony of high authorities would, no doubt, carry even greater weight if it should be repeated with a full recognition of the *a priori* improbability to which Professor Pigou has called attention.

Secondly, let it be granted that the cost of service principle, the system of charges which would be realised by perfect competition, is ideally the best. Yet with regard to a system so complex, how can we ascertain in the absence of competition what charges would be fixed by competition? The attempts to do so for railway we understand not only the monopoly price, but any unique price for the two articles. But in the *particular* case when the marginal cost of producing the amounts saleable at the unique price b is just equal to b the proposition breaks down; the curves do not intersect, but *touch* at the point ($\eta_1 = 0$ $\eta_2 = 0$), in such wise that it is not possible to move off from that point in a direction advantageous to both parties. It should be observed that the existence of a *maximum* at this point is not inconsistent with the possibility that some other point represents *greater* advantage both to producer and customers, as suggested in the text (p. 215).

¹ Cp. *Wealth and Welfare*, p. 107.

² *Op. cit.*, p. 211 *et seq.*

³ Ripley, *Railroads*, pp. 152, 168 *et passim*. The *dynamic* use of discrimination claimed by Professor Ripley would, I think, be admitted by Professor Pigou as pertaining to an initial stage (*op. cit.*, p. 234).

rates have often proved ludicrous. They remind one of the pretension sometimes made by politicians to tell us what some dead chief—Mr. Gladstone or Lord Beaconsfield—would have thought about a measure which was never before them. The defunct authority ought at most to be invoked only to sanction a general line of policy, not to furnish details such as, say, the items of a tariff. As Professor Pigou says: "It is plain that anything in the nature of exact imitation of simple competition is almost impossible to attain." . . . "A considerable gap between the ideal and the actual is likely to remain."¹

The impracticability of the cost of service principle seems to be largely the ground on which it is dethroned by leading economists from the sovereignty which it might otherwise claim. Professor Ripley begins: "There can be no question that for an indispensable public service like transportation, conducted under monopolistic conditions, the ideal system of charges would be to ascertain the cost of each service rendered and to allow a reasonable margin of profit over and above this amount."² But he goes on, in view of the difficulty of ascertaining those charges, to attribute a position of collateral supremacy to the principle of value of service: "Two general theories governing the rates chargeable by railways are entertained, known respectively as cost of service and value of service. . . . Neither of these views [pertaining to the two theories] is entirely sound by itself. Both have large elements of truth in them. Each qualifies the other"³ "Our final conclusion then must be this: That both principles are of equal importance, and that both must be continually invoked as a check upon each other."⁴

These dicta no doubt embody the highest practical wisdom. And it is perhaps vain to desiderate that the limits of these practical principles should be defined more closely by reference to the more general conditions of welfare, the "equality of marginal net products," or the still more ideal principle that the money measure of economic satisfactions should be as great as possible.

Theory of Limited Monopoly.—Nor do I attempt here to formulate the relation between the cost of service principle and the mixed modes of monopoly which are discussed in my second section. Suffice it to submit that in the present state of scientific opinion about the subject those discussions seem not otiose. In this part of the work I have obtained support from the adjacency of Professor Pigou's constructions at two points. First, he lends

¹ *Op. cit.*, p. 265 *et seq.*

³ *Op. cit.*, pp. 166, 167.

² *Op. cit.*, p. 168.

⁴ *Op. cit.*, p. 184.

countenance to the use of a right line for the demand-curve as a device for exploring the probabilities of more concrete cases; though he himself seems to use the construction chiefly for the sake of convenience.¹ I am fortified in the assumption that the right line may be provisionally taken as the type of the demand-curve pertaining to the customers of a railway company.² I am therefore confirmed in the deduction that discrimination accompanied with a moderate control is likely to be better, both for the customers and the monopolist, than monopoly forbidden to discriminate.³

In this and other theories I have largely employed a sort of Probability which has been described in this journal as *a priori*,⁴ and elsewhere perhaps more unequivocally as "unverified." This species of probable inference bears to the more solid parts of statistics and economics a relation something like that which Adam Smith has pointed out between literary and mathematical compositions. The authors of the latter kind, he says, "may have the most perfect assurance both of the truth and importance of their discoveries; and accordingly they are, much more than the others, "indifferent about the reception which they may meet from the public."⁵ Now the unverified or non-statistical part of Probabilities, though it is but common sense reduced to formula, yet is not so commonly recognised, not so obviously objective, but that those who employ it should desiderate the approbation of good authorities. This sort of confirmation is largely afforded by Professor Pigou, who employs this sort of inference repeatedly and with respect to the most momentous interests.⁶

The problem in my second section, which comes nearest to

¹ Once at least to show that as there is nothing knowable in this simple case, "our ignorance would not be lightened" by abandoning the assumption of linearity (p. 107).

² But the claim which I have made in favour of the right line that it is intermediate between the convexity predicated by Dupuit and the concavity predicated by Professor Pigou (ECONOMIC JOURNAL, Vol. xxiii., p. 65) must be retracted. It was based on a misinterpretation of Professor Pigou's doctrine concerning the *third* differential of utility (*Industrial Peace*, p. 70). I forgot that the theorem related not to a particular commodity, such as railway service, but to money income, being in fact an improved version of what I had myself (ECONOMIC JOURNAL, Vol. vii., p. 559) described as "the circumstance that as the income is increased by equal increments the differences between the successive increments of utility become less." My misapplication of the doctrine was facilitated by a misprint in Professor Pigou's statement of it.

³ ECONOMIC JOURNAL, Vol. xxii., p. 200.

⁴ ECONOMIC JOURNAL, Vol. xx., pp. 287, 459, 463 *et passim*. Article on "Probability" in the *Encyclopædia Britannica* (11th edition), Section I.

⁵ *Theory of Moral Sentiments*, Part III, Ch. 2.

⁶ As I have pointed out, ECONOMIC JOURNAL, Vol. xiii., *loc. cit.*

one of those which Professor Pigou has handled, is that which relates to the effects of discrimination in a *régime* of monopoly.¹ Supposing with him that the law of demand is linear, and that the law of constant return holds, I find with him that the monopolist will produce the same quantity after discrimination as before.² But I have not attended particularly to the alteration of the output: which, as pointed out by Professor Pigou, has not the significance in a *régime* of monopoly which it has in one of competition.³ He uses it here only as a stepping-stone towards a *quaesitum* which I have sought more directly.

The only other remark which seems called for in connection with the problems in my second section is that they are not open to the criticism which has lately been directed against Professor Pigou as one "trained in the mathematical school," and accordingly applying a well-rounded theory of monopoly which does not take account of the *incompleteness* characterising monopoly in the concrete.⁴ My conception of a monopolist seeking a maximum of gain, *subject to limitations* imposed by the threat of competition, by public spirit (or State control), admits, I think, of *degrees* much clearer than the expressions commonly employed in a similar connection, such as "equal sacrifice," or "not charging what the traffic will not bear."⁵ Not that I mean to endorse the criticism as applicable to Professor Pigou. A sense of continuity is not likely to be wanting in the follower of him whose motto is *Natura non facit saltum*.

F. Y. EDGEWORTH

¹ *Wealth and Welfare*, p. 210.

² From the equations indicated at p. 446 *et seq.* in the *ECONOMIC JOURNAL*, Vol. xx., it appears that if ξ'_1 and ξ'_2 are the proportional deviations of the output in consequence of discrimination from what it was before discrimination

$$\xi'_1 + \xi'_2 = -(1 + \beta)\eta'_1 - (1 - \beta)\eta'_2 = 0,$$

$$\text{since } \eta'_1 = -\frac{1}{2}\beta/(1 + \beta) \quad \eta'_2 = +\frac{1}{2}\beta/(1 - \beta).$$

³ *Loc. cit.*, § 17.

⁴ *Quarterly Journal of Economics*, Vol. xxvii. (1913), p. 384.

⁵ See Sect. 2, p. 216 (*ECONOMIC JOURNAL*, Vol. xxii.) *et passim*.

REVIEWS

English Local Government: the Story of the King's Highway.

By SIDNEY AND BEATRICE WEBB. (Longmans. 1913. Pp. x+279. Price 7s. 6d.)

STUDENTS of English Local Government, in common with the community at large who suffer from the defects of that Government, though they may not study either their causes or their cure, owe to Mr. and Mrs. Sidney Webb, to whom they already owe so much, a new debt of gratitude for the *Story of the King's Highway*. The story is well told. The lessons to be drawn from it are clearly brought out, not in a spirit of dogmatism, but by skilful presentment of such facts and considerations as are essential for a true understanding of the road problems, which for centuries baffled our forefathers, and some of which remain to puzzle the reformer of to-day. The book contains a great mass of material; an exposition of a very complicated and little-known branch of law; a collection of facts of great historical and antiquarian interest; and a scientific study of most important questions affecting the organisation and administration of government, which, after many centuries of intermittent neglect and spasmodic effort, are still in great part unsolved. And the authors succeed in weaving the whole into a story possessing almost the fascination of romance; not, indeed, one of the breathless romances of to-day, but one of the leisurely eighteenth-century kind, such as delighted Sir Walter Scott's old friend, who knew that, even if she went to sleep during the reading, the conversation in the cedar-parlour would still be going on when she woke up.

Nine chapters are devoted to the past, and one short chapter to the present and future. The conclusions as to "what is to-day required in the organisation of our highways" are contained in one or two short paragraphs at the end of the book. This allocation of space is more easy to justify than would appear at first sight. The true direction of reform for what remains to be

reformed is made abundantly clear by a study of the failures, the record of which forms the bulk of the story. Indeed, the book might have had a second title, "Muddling Through." The whole history is one long story of failure—failure of central organisation, failure of local administration, failure to provide funds for decent maintenance, failure to put the financial burden on the right backs, failure to make even a tolerably satisfactory use of the money that was spent. And yet, spite of all these failures, which no one who reads the history can deny, in the year 1913 the King's Highway in England passes over what are unquestionably the best roads in the world.

How did we get them? The question is more easily asked than answered. The materials for an answer are mainly wanting. But this much at least is clear. The original conception of a road—its legal conception still—was not a strip of land, with definite boundaries and a specially prepared surface, but merely a "right of way enjoyed by the public at large along a certain customary course." In early British times the roads were certainly of this latter kind, and the Ridgeway along the top of the Berkshire Downs, above the Vale of the White Horse, remains to this day as an example. Then came the Romans, and built roads in the modern sense all over the country. The bulk of them are in use to-day, and on the most famous of all, the Watling Street, the Roman pavement was actually *in situ* near Atherstone within the memory of men still living. But here and there, as on the line of the Fosseway, near Leamington, or on the Ermin Street, near Epsom, which Lord Rosebery lately reintroduced to the notice of the public, they have practically dropped out of use, and have ceased to be highways except in the legal sense. If we are to understand rightly the story of the King's Highway, we must think of it, right through English history down to the eighteenth century, not as a metalled carriage-way, but as a route for public passage in a definite direction, of indefinite width, however, with a legal right for passengers, if the road were "foundrous," to diverge from it even to the extent of "going upon the corn"; a route which crossed rivers mainly by fords, and only occasionally by bridges; and a route intended, not for wheeled vehicles, but for pedestrians, horses, and other animals. The famous *trinoda necessitas*, which imposed upon the landowner in feudal times the obligation to maintain the road, was not an obligation to put down a tarred macadam surface with a steam-roller, but merely to cut the brushwood and stub the stumps that impeded free passage.

The story of the King's Highway develops along two parallel lines, the one regarding the physical entity of the road, the other the legal, financial and administrative machinery for its maintenance and repair. To deal with the physical side first, the startling thing about it is to find how exceedingly modern is the modern road. In 1736 Lord Hervey wrote from Kensington that "the road between this place and London is grown so infamously bad that we live here in the same solitude as we should do, if cast on a rock in the middle of the ocean, and all the Londoners tell us that there is between them and us an impassable gulf of mud." And even forty years later, on the great main roads of the country, Arthur Young's *Journeys* records defects such as "rutts, which I actually measured, four feet deep, floating with mud only from a wet summer; what therefore must it be after a winter?" He describes the turnpike to Newcastle as "a paved causeway, as narrow as can be conceived, and cut into perpetual holes, some of them two feet deep. . . . I must in general advise all who travel on any business but absolute necessity to avoid any journey further north than Newcastle." This latter road was, be it observed, a turnpike! Mr. and Mrs. Webb give abundant reasons for dispelling the common belief that a turnpike road meant a good road. Much of the money collected by the Turnpike Trusts was wasted in process of collection, and much of what remained was either muddled away or actually embezzled. The turnpike roads never amounted to more than 25 per cent. of the total. But bad as these were, the parish roads were even worse. As for the central Government, it did practically nothing. Telford's Holyhead road is the one conspicuous exception; though in Scotland General Wade did build roads on a considerable scale, the landowners, it is interesting to note, paying half the cost.

Physical and administrative considerations are alike involved in the century-long struggle which even yet is not terminated: whether the road should be made to suit the traffic, or the traffic should be restricted to suit the road. The London Borough Councils, who desire to prohibit motor omnibuses because their roads are not strong enough to bear them, have their prototype in James I. forbidding "any four wheeled vehicles, or the carriage of more than one ton of goods at a time, as the vehicles bearing 'excessive burdens' so galled the highways, and the very foundations of bridges, that they were public nuisances." Act after Act regulates the number of horses to a vehicle, the width and height of the wheels, the minimum size of tyres—even to nineteen

inches in breadth—the spacing from front to back wheels, and so on, and so on. The introduction of stage coaches was met with a passionate protest that their use would enervate the hardy breed of horsemen. The introduction of hackney coaches into London was objected to as an unwarranted invasion of the secular rights of the watermen. Hardly had the coaches secured their footing than there fell upon them the “calamity of railways,” which in their turn were to ruin the fox covers, put a stop to the breeding of horses, and bankrupt the Turnpike Trusts. Then came the bicyclist, and the country police promptly prosecuted him for “scorching,” while the country gentleman denounced him as a “cad on castors.” The kaleidoscope shifts, and we find the railways complaining of the competition of motor cars on the open roads, and tramcars in the streets of the great towns and their suburbs. And so we come down to to-day, with the municipal tramway protesting against the competition of the company’s motor bus. And perhaps the aeroplane will supersede the motor bus. And then at length the road question will be at rest.

To turn to the administrative side. The history of turnpikes extends over a little more than two centuries. It began with a toll gate on the Great North road at Wadesmill, in Herts, under an Act of 1663; and it practically ends with the Local Government Act of 1888. But the bulk of the Turnpike Trusts—there were over 1,100 of them in all—were created in the latter half of the eighteenth century, and the early days of the nineteenth. They were essentially a makeshift, and to expect their success was to expect the impossible. Their constitution was preposterous. All the local somebodies—fifty or a hundred in number—were nominated under the Special Act as Trustees, and the great bulk of them never attended. They kept no proper form of accounts, and were responsible to nobody. They could not afford to pay for a competent surveyor, even had such men existed. They were at constant war with the inhabitants of their districts, from whom they often exacted exorbitant tolls for passage over a few hundred yards of road. Gradually they came to hand over their functions to contractors, who farmed the tolls for hundreds or even thousands of miles of turnpike. The contractors made fortunes. But the road maintenance was scamped; and those who had lent money to the Trusts not infrequently lost it. The road users complained that for the maximum of payment—the toll revenue at one time amounted to one and a half millions per annum—they obtained the minimum of benefit. Only where, near the Metropolis, or round some great local centre, such as

Bristol or Exeter, a single Trust succeeded in absorbing its smaller neighbours, and establishing an undertaking big enough to employ a competent surveyor—even the great Macadam himself, or his less-known son—were the results satisfactory.

The Turnpike Trusts had at least one advantage over the Common Law road authority, the Parish, in the fact that they could not be indicted for neglect of duty. Down to our own times, the Common Law has placed upon the Parish the obligation to maintain its roads. And if the Parish did not do its duty it was indicted and convicted with all due process of law, not unconnected with very considerable expense, at the Assizes. And, apart from the grotesque unfairness of requiring a hamlet on the route from Dover or Southampton to London to maintain the route for the great through traffic between these ports and the Metropolis, the Parish had no machinery for carrying out its legal duties. For centuries it could not levy a rate. The inhabitants were bound to give their personal services. Of course, an extra legal system of commutation sprang up; and influential persons who could best afford to pay got off cheapest. And, equally of course, the roads were inadequately maintained. Ruts, when they got more than four feet deep, were ploughed over—this method is being recommended as a modern improvement on the “dirt” roads of America to-day—or a cartload of stones was thrown into some exceptionally “foundrous” place. Naturally, the farmers did not see why they should make, at their own cost, roads, better than they needed themselves, for the sake of outsiders. At length statute labour died out, and the highway rate took its place. But it was reserved for our own generation to sink the Parish in a wider area, and to hand over the maintenance of roads to the Union and the District Council, and even, though in a degree varying widely from county to county, to the County itself. Doubtless this process of “maining,” as it is technically called, will be carried further in the immediate future.

But even this is not the end. The whole cost of road maintenance—subject to existing grants-in-aid from the central Government—now falls upon the owners and occupiers of real property. And if it be admitted that even now road users as such get off too lightly in comparison with owners of real property, and that with the rapid growth of motor traffic this is likely to be still more the case in future, some readjustment must be made. One school of reformers would follow the French example, and transform the great main roads of the country into *routes nationales*. The other school, to which, as might be expected,

Mr. and Mrs. Webb declare their adhesion, believe in central control and supervision, resting on the basis of central grants-in-aid on a generous scale.

The suggestions which Mr. and Mrs. Webb make for future legislation are on quite a modest scale. They think that some exceptional contribution towards the cost of highway maintenance should be levied on the owners of vehicles of an exceptional character. Probably the motor omnibus and the heavy commercial motor would both fall within this description, and perhaps also fast motor cars in excess of a certain weight. They suggest that grants from the Road Board should be available for the maintenance as well as the improvement of highways (either already "mained" or which should be "mained") maintained by County or County Borough Councils and the Councils of Boroughs and Urban Districts having more than 20,000 population, and that grants in aid of maintenance of important roads, "perhaps equal to 20 per cent. of the actual annual expenditure," should be made, the requisite funds being partly provided by means of a reasonable increase in licence duties and motor-spirit duties. This proposal, if it is meant to include the existing grants in aid, would hardly commend itself to highway authorities as adequate, as it would in many cases reduce the State aid now given to County Councils for their main-road expenditure. They suggest also that minor highway authorities should have power "voluntarily to cede their road administration to County Councils." But this power already exists under the Local Government Act, 1888, though it is largely ineffective, partly because the minor authorities are not willing to give up their power to keep the maintenance in their own hands, partly because a district road before being handed over to a County Council must be placed by the District Council "in proper repair and condition to the satisfaction of the County Council," and partly because County Councils are not under any obligation to "main" roads, and in most Counties are unwilling to do so. The suggestions of the authors are all in the right direction, but probably no satisfactory solution of the road problem will be reached until the promised readjustment of local and imperial taxation has been effected and a proper classification of roads has been made based on the character and amount of the traffic using them.

The road that Mr. and Mrs. Webb have led us has been long and devious, perhaps even occasionally "foundrous." But the ramble has been most interesting throughout. Perhaps in a second edition the authors will help us to answer a most interest-

ing question which they leave untouched: How during the latter part of the last century the farmers, recalcitrant all the time against unnecessary expenditure, yet came to transform the bye roads from the mere tracks, which apparently they were not more than two generations back, into excellent macadamised roads as we see them to-day.

GEORGE S. GIBB
W. M. ACWORTH

English Farming Past and Present. By ROWLAND E. PROTHERO.
(London: Longmans, Green. 1912. Pp. 504.)

WE have read books on English agriculture by the dozen: books by German professors and French doctors, by politicians, students in research and apologists for this view or that; and we have generally laid them down with the feeling that these people, honest folk, no doubt, and often learned, do not understand our English agriculture and do not know our English countryside. Mr. Prothero is none of these. He combines the scholarship of Oxford with the insight that is born of business contact with the economy of agriculture. We can do no more than pick out some of the main threads of his comprehensive work, leaving to the masterly art of the author their combination in picturesque and yet solid narrative.

Mr. Prothero's critique of contemporary agricultural literature makes three things abundantly plain. The first is the fact of our constant indebtedness to the foreigner, a debt which in the nineteenth century we amply repaid. In the seventeenth century Samuel Hartlib (who, like Richard Arkwright, was something of a pirate), after noting the inferiority of English cheeses to those of Italy, France, and Holland, reproaches the English husbandman for his insularity. Sir Richard Weston (Circa 1650) calls attention to the Flemish custom, unknown to him in England, of taking a farm "upon improvement," on the basis of a twenty-one years' lease, which provided that "whatsoever indifferent persons . . . should judge the farm to be improved at the end of his Lease, the Owner was to pay so much in value to the Tenant for his improving it" (p. 113). England arrived at this in 1883. It was by the skill of Vermuyden and his Dutchmen that the fens were drained in the days of the Commonwealth. The Inquisition drove valuable brains to England. Jethro Tull, who invented the first practical drill, had been impressed during his foreign travels "with the cultivation of vineyards in the south of France, where fre-

quent ploughings between parallel rows of vines not only cleared the land, but worked and stirred the food-beds of the plants until the vintage approached maturity" (p. 171). In the seventeenth century foreign breeds of horses were extensively imported: "so great was the admixture of blood that Bradley, writing in 1727, thinks the true bred English horse hardly exists" (p. 183). Weston, a refugee in Flanders during the Civil War, brought back the turnip, and was therefore accounted by Arthur Young "a greater benefactor than Newton" (p. 107). From the same country came the onion, the cabbage, and the potato. Neither men nor ideas nor capital were in those days immobile as between the nations.

In the second place, the progress of agricultural knowledge was uneven. Tusser and Fitzherbert carried agricultural science but a very little way further than Walter of Henley, the didactic steward of the manorial economy. What was new was their record of the social changes which were fast dissolving the frosted patchwork of English feudalism. Even in 1651 Hartlib offers the following prescription against the Rot: "Take serpents or (which is better) vipers, cut their heads and tayls off and dry the rest to powder. Mingle this powder with salt, and give a few grains of it so mingled now and then to your Horses and Sheep" (p. 111). But from Tull onwards there is no break in the progress of agricultural knowledge, in peace or in war (for Napoleon never got to England), in fine weather or in wet, in the halcyon days of high farming or through the grim economies forced on the last generation by the strain of American competition. One by one the natural sciences are placing the wealth of their discoveries at the service of agriculture. This continued and continuing progress of knowledge is a fact which might be remembered by theorists when they formulate a law or statement of tendencies in agriculture.

The third point is a simple fact of human nature, or illustration of the Law of the Division of Labour. "Albeit," says the Doctor in the Discourse on the Common Weal, "we labour not much with oure bodies as youe say, yet youe knowe we labour with oure myndes, more to the weaknyng of the same than by anie other bodily exercise we can doe. . . ." Truly study weakens the mind. Lecturers in Political Economy make poor directors of companies. Thomas Tusser, Richard Weston, Robert Bakewell, Arthur Young, all failed as practical farmers. Exceptionally, Ricardo made a fortune on the Stock Exchange, and then wrote good Political Economy.

Politics, economics, sociology (if there be such a thing), and law meet in the history of land tenure. In Chapter 2, "The Break-up of the Manor"; Chapter 3, "Farming for Profit"; Chapter 14, "The Rural Population"; Chapter 16, "Tithes" (a most valuable contribution in an obscure field); Chapter 19, "Conclusions," Mr. Prothero gives us in kaleidoscope the history of a little verb *tenere*, to hold. We should like here to ask him three questions for possible notice in the second edition which this book will doubtless soon reach. "For the first 140 years of the period (1189-1417), the lords of Berkeley steadily pursued the plan of converting customary tenancies and tenancies of newly enclosed lands into freehold of inheritance at fixed quit-rents which represented the rack-rents then current. . . . This family policy was, however, completely reversed by . . . Thomas, third Lord Berkeley (1326-61). Many hundreds of the freeholds created by his predecessors were repurchased and let at rack-rents" (p. 45). What exactly were these freeholds of inheritance? Challis, *Real Property* (p. 3), says "ancient quit-rents, which affect freehold lands held for a fee simple and are undoubted incidents of their tenure, still exist; but in practice these must be at least as old as the year 1290, in which year the statute of *Quia Emptores* made it thenceforward impossible for a subject to reserve a rent as incident to tenure only." Were there special circumstances which enabled the lords of Berkeley to create freeholds at quit-rents during the forty years after 1289? The second question is: How important were cottagers in mediæval times; are they in any sense the lineal ancestors of the modern labourer? "Beside the villeins, there were other orders of bondmen—such as . . . the bordars and cottars" (p. 22). "Cottagers, says Kent, who live at the sides of the common, generally neglect the advantage they have before them" (p. 305). A gap of six centuries separates these two quotations, and the cottager is not indexed elsewhere. The study of the manorial surveys seems to reveal little about them. Some cottagers are mentioned among the freeholders and some among the copyholders. Is it true that the class of cottager is irrelevant for purposes of law and even of rural economy, the great divisions being on the one hand between freeholders, leaseholders, and copyholders of different grades, and on the other hand between farmers and the employees of farmers, whether farm servants or labourers in the parish or labourers from outside? And again, after following up freeholds (not freeholders) to p. 150 we are then instructed to see *Landowners*. Turning for prefer-

ence to Yeomen; we read at the end of an instructive note (p. 296, note 4): "The definite restriction of the word to farmer-owners is a comparatively modern usage belonging to the nineteenth century. See *Dictionary of Political Economy*, s.v. Yeoman." Again exercising the liberty of a critic we turn rather to Sir Thomas Smith, *De Republica Anglorum* (1565), who says (Lib. I. c. 23) that yeoman means one who "is a freeman borne English and may dispens of his owne free lande in yerely revenue to the summe of xls sterling." Now one remembers as a boy how quaintly the Reform Act of 1832 read: "In the counties the franchise hitherto confined to 40s. freeholders was given to £10 copyholders and £50 leaseholders." Why, one asked, this discrimination? Why, when men were buying and selling 40s. freeholds, did not the reforming Parliament extend the franchise to 40s. copyholders and £10 leaseholders? Is the explanation possibly this, that economic change from the sixteenth century onwards led to the emergence of so many people of the yeoman type, yet without the yeoman's freehold, that they had perforce to be allowed the name? Latimer's father, as Mr. Prothero reminds us, was a yeoman, but had no land of his own (p. 296, note 4). In 1832 Parliament tried to get level with the new situation, which was only four centuries old. That done, the yeoman could be restored to his original denomination, an occupying owner.

One supreme question overshadows every other in English agriculture, the question of Enclosure. Its literature grows yearly. Within the last two years we have had the impassioned protest of Mr. and Mrs. Hammond, the exact scholarship of Professor Gonner, the lively and inspiring research of Mr. Tawney. Mr. Prothero's verdict is that of a sympathetic judge versed in the economy of agriculture, with the cases of the county reporters at his finger's end. "It has been suggested," says he, "on the authority of passages in his tract on wastes, that Arthur Young learned to deplore his previous crusade against village farms, when he saw the effect of enclosures on rural life. What Young deplored was the loss of a golden opportunity for attaching land to the home of the cottager. But he never faltered in his conviction of the necessity of breaking up the open fields and dividing the commons" (p. 215). And again, "The divorce of the peasantry from the soil, and the extinction of commoners, open-field farmers, and eventually of small freeholders, was the heavy price which the nation paid for the supply of bread and meat to its manufacturing population" (p. 149).

The Corn Laws are now of historical interest only, the only

possible connection with modern times being furnished by the tradition of Imperial Preference, which, as Mr. Prothero observes (p. 273), was present in all the Corn Laws from 1791 onwards. Treating of their growth in England, our author says: "In 1670 the corn laws became more frankly protective" (p. 143). Seeing that to the end of the eighteenth century England was a wheat exporter, and that on occasions of scarcity the import duties, like the export bounties, were suspended—*e.g.*, in 1698, 1709, 1741, 1757-9—"protective" seems an unsuitable word. The import duties of 1670 were quite secondary to the regulation of exports in this period. "Fostering" was nearer their intention. Only after 1815 were the Corn Laws frankly protective, and that fact killed them in 1846. Of the Corn Bounty, Mr. Prothero writes p. 259: "In the reign of William and Mary an addition was made to the system"—to wit, a bounty of 5s. per quarter on home-grown wheat exported. This is not quite accurate. For, as an American writer, Mr. Gras, has shown, the first Corn Bounty lies buried in a money grant of 1673, and in 1683 John Houghton estimated that in all about £70,000 yearly was needed for the payment of corn export premiums. Its existence was not unknown to the Parliamentarians of the early nineteenth century. The Report from the Select Committee on the Agriculture of the United Kingdom, 1821 (p. 18), speaks of the bounty policy: "which, more desultory in its operation and more frequently interrupted by arbitrary interference, prevailed under the Princes of the House of Stuart." Speculations, therefore, as to the design of the Whigs in introducing this policy in 1689 require revision.

"The limit of home prices, at which the importation of grain was allowed at nominal duties, was raised in the case of wheat from 48s. in 1773 to 85s. in 1815. Below those limits, duties, so heavy as to be practically prohibitive, were levied on imported corn" (p. 273). 85 is a misprint for 80 (the figure being correctly given in Appendix III, on the Corn Laws, which contains also an account of the Assize of Bread). Moreover, there is a distinction between the Acts of 1773 and 1815. That of 1815 was not prohibitive, it was a prohibition. When the ports were closed no corn could come in, and there was no revenue at all. This was a breach in Corn Law tradition. When Robinson proposed it for the first time in the third draft of the measure which became the law of 1815, Alexander Baring, the member for Taunton, suggested that the Government proposed prohibition rather than a graduated duty, in order to catch at a little popularity, lest the idea of a duty upon corn should excite an outcry

(Hansard, XXX., 70). Robinson denied it, but gave no alternative explanation. Mr. Prothero next refers to the encouragement which the sticky sliding scale of 1828 gave to corn speculators, having in view, no doubt, Mr. David Salomons' pamphlet on the subject, and concludes: "Yet in spite of this experience the graduated system was maintained in the legislation of 1842 and 1845" (p. 273). But surely, if the Act of 1828 was sticky, that of 1815 was stickier still, and encouraged still further the holding up of supplies until free entry was obtained at the no-duty point. Peel's sliding scale, by its lower range and slighter changes, removed, and was designed to remove, the weaknesses of the scale of 1828.

It is something of a joke against economic historians that they expire about 1820, and in their death-song announce the consummation of the Industrial Revolution. To an economist Chapters 17 to 19 of Mr. Prothero's book are the most interesting of all, being full of new and recent matter. If so far we have been pacing through the centuries, now we begin to gallop. Change succeeds change. Depression is followed by prosperity, which is again followed by depression, which, in its turn, is painfully surmounted. Methods, markets, persons are challenged and reformed: the old gives place to the new. On this note we could wish to end, but there are two sentences in the conclusions (in which the author favours a peasant proprietary for England) which seem to ask for criticism. "The Small Holdings Act has provided a certain quantity of land. But its methods are so faulty that its operations are necessarily limited" (p. 415). Does none of the fault lie with landlords? We who belong to colleges in Oxford and Cambridge know something of the average landlord's feelings on the subject, and the farmer—who is the only person with a good cause for grumbling—has expressed his. If small holdings are to be discussed, they deserve a chapter to themselves, including, for example, an account of the successes that are being won in Cambridgeshire, as well as a criticism of the difficulties that are being experienced in some other parts. We could wish, too, to delete the last sentence of the book. "For the purpose of this enquiry"—Mr. Prothero is referring to the ascertainment of the bare unimproved value of agricultural land—"the Valuation now in progress would be only a costly farce if it were not also a serious injustice" (p. 418).

Injustice! The word brings us back to the tragedy which we had almost forgotten in our admiration of the gallant resistance made by British farmers during the recent prolonged

depression. How many copyholders and poor commoners must have gone to their graves with this word on their lips! Was not injustice most unjust when—as now—the law was on its side, when there was no longer a Court of Star Chamber to sit with unconstitutional promptness on encroaching landlords? A Parliament of landlords turned the argument from justice to necessity, and declared a peasant proprietary to be economically incapable of catering for an industrial England, but what shadow of a chance did it give to the peasants to try their hand? Are we to condemn the customary tenants for blindly resisting enclosures in the eighteenth century (in the fourteenth and fifteenth they often practised it among themselves) when enclosure meant exile or degradation? For what with doubtful titles and 'lawyers' fees, bills for quickset and new roads, enclosure meant to the small man nothing less than this. Sheep are good things, and turnips are good things, and both are better than foxes; but men are better than them all. If Coke saved England by the ploughshare, why might he not have saved it with the ploughshares of an organised peasantry? Or was the yeoman of Elizabethan England a myth, and was his representative at the beginning of the nineteenth century incapable of the things which the Danish peasants did half a century later, when they made themselves expert and specialised farmers, supplying the industrial population of England, Danish law and Danish Government assisting? But we are ourselves in danger of gliding into exaggeration, like Macaulay in his caricature of the English country squire. For there have been, and still are, many just and generous landlords in England. Times, however, are changing. Mr. Prothero pleads for a peasant proprietary. We echo his desire. Only the landlords of England can restore to sure success the peasantry they once dethroned. This restoration is the biggest call that England has ever made on the chivalry of her erstwhile rulers.

C. R. FAY

Troy: A Study in Homeric Geography. By WALTER LEAF, Litt.D. (Macmillan and Co.)

THE modern fashion of seeking for economic causes has led Mr. Leaf to write a very interesting book. Why was Troy so rich and important? M. Bérard's answer is well known. In early times navigation by sea was difficult and dangerous; consequently it was easier to carry goods over an isthmus than to round a promontory. Those who could hold the isthmus could

levy toll. Mycenæ, rich in gold, is the most obvious illustration of the "isthmus law." M. Bérard applied this law to Troy; but Troy is not on an isthmus; could it ever have been worth while to carry over from Besika Bay to the Hellespont? Mr. Leaf's theory, which is suggested by M. Bérard's, is, briefly, as follows: A current runs down the Hellespont from east to west. During the greater part of the year there are strong winds from the north or north-east; consequently small ships are often detained off the entrance to the Hellespont for a considerable period of time. Ancient ships, with jars (not galvanised iron tanks) could not carry much water. Therefore ships from Greece going to the Black Sea must get water at the entrance to the Hellespont to sustain their crews during the enforced delay. The only place where this can be done is at the mouth of the Scamander. Thus they who can hold the mouth of the Scamander can effectually block the Hellespont. This is what, in Mr. Leaf's view, the Trojans did, and prevented direct trade between Greece and the Black Sea ports. The result was an annual fair at Troy (King Priam taking heavy tolls): to this fair came traders along four well-marked trade routes, which are faithfully represented in the catalogue of the Trojan allies. At last the Greeks got tired of paying tolls and combined to smash the monopoly. These trade routes are as follows: First, by land from Europe north-west of Troy, from the river Axios through Thrace to the Hellespont; second, by sea from the ports on the south shore of the Black Sea; third, by land from Phrygia and Mysia; fourth, by sea from Lycia—probably to Assos in the southern Troad on the gulf of Adramyttium and then overland to Troy. Mr. Leaf traces these routes with learning and ingenuity, though it seems possible that the Pelasgians (Mr. Leaf has a separate chapter on these puzzling folk) from Larisa may have been allies from the Thracian route; but that question cannot be discussed here. If, then, Mr. Leaf is correct, we have four trade routes converging at Troy, apart from the trade from Greece. The excavations at Hissarlik have established a series of cities or fortresses on the same site; the sixth of these cities, with its great Mycenæan walls, is clearly Homer's Troy. But the earlier cities were also rich. Dr. Schliemann's gold treasure probably came from the second. After Homeric Troy, the town is never important except as a tourist resort (Alexander of Macedon and Julian the apostate were two of the tourists who visited post-Homeric Troy). A successful theory has to explain why Troy was of great importance in the second millennium B.C., but never afterwards. This is the

problem, and it is only fair to state Mr. Leaf's summary of his solution in his own words:—

"We see now why it was that Troy never recovered from its capture by the Achaians. . . . It was not the capture, but Greek colonisation, which destroyed Troy. It had one merit only—that it could block the Hellespont to the west. As soon as the west had taken possession of both shores of the Hellespont, Troy was for practical purposes useless."

But, it may be asked, could not Trojans still have continued to levy toll on the Black Sea trade, just as till recent times the Danes at Elsinore levied toll on the Baltic trade? And why did not the Black Sea trader wish to trade direct to Greece? If so, he should have helped the Greeks, and not the Trojans. And was Greece always so united that it would not have paid some later Priam (before the era of moderately large ships with many oars) to start the blackmailing business again? Also, it could not matter much to the Thracians, who brought their wares to the Hellespont, whether they found Greeks or Trojans there so long as there was a good market. Yet Thracians fight for the Trojans. They may have been mercenaries, but what is the evidence that they were? These observations are only intended to indicate that the argument, as it stands, is too compressed. The main contention seems to be sound. The excessive wealth of Troy can hardly have been due to anything but blackmail—that is, the possession of some advantage of a monopolistic kind which enables the possessor to exact tolls far in excess of the services rendered. Such has probably at all times been the most potent method of acquiring great wealth. The power of causing great inconvenience is commonly more valuable than the power of rendering important services.

The book does not deal solely with economic causes and trade routes, but the other problems of great interest which Mr. Leaf attacks are not of a kind which would necessarily interest readers of this JOURNAL. Except for one most unfortunate phrase on p. 2, this book is not marred by the unfairness and rudeness which are too common amongst scholars when they discuss Homeric problems.

C. P. SANGER

Kapital und Kapitalzins: Positive Theorie des Kapitals. Dritte Auflage. Zweiter Halbband. Professor und Finanz-Minister E. VON BÖHM BAWERK. (Innsbruck: Wagner. 1912.)

THIS work on Capital and Interest has long been beyond need of laudations. In noticing Part II. of the new edition of the

constructive part of it, we deal simply with the various changes and supplements that have been made by the author after more than twenty years' endurance of European and American criticism. From stress of official duties he was unable to make alterations in the second edition (1902); but in due time he has found leisure to do justice to himself and work vengeance on his opponents in the third edition. Part I. of it appeared in 1909. Part II. is now before us.¹

The author has all his old energy. He seems to have mastered all that has been written directly, or even indirectly, bearing on his chosen subject. The articles and pamphlets and books thereon turned out by the Press of Europe and America year after year since 1889 (the date of his first edition) form a vast pile; and he has read it all and taken the heart out of it. Everything of interest and value on Interest and Value seems to be known to him. This makes the present book in its two parts not only the statement and defence of his own theory, but a history and digest of a great part of recent economic literature. He himself disclaims² approach to exhaustive history, and will have it that he has only dealt fully with a chosen few of the writings and authors. But his ideal of exhaustiveness is a very high one. He knows, indeed, that many will find it much too high, and he warns the general reader away from his "Excursus" as a food he cannot be expected to enjoy. Perhaps the Excursus will have the more delicious taste for the critics who find their own measure meted out to them again there without stint.

The text of the whole book (Parts I. and II. conjoined), as distinguished from the Excursus, has undergone four chief changes. The references to recent writings have distended the third section of Book I. to twice its original size; it is the section on conflicting definitions of capital (*Streit um den Kapitalbegriff*). A new section³ appears in Book II. on "An important parallel to the roundabout way of production by capital." The parallel is found in the improvements increasing the utility and lengthening the life of durable goods (like boots or houses), improvements involving greater outlay than before but with clear physical (or "technical") advantage and (under suitable conditions of the rate of interest) with economic also. The analogy, however, is not perfect.

¹ Notices in this JOURNAL of recent publications of the author appeared in June, 1900, *Strittige Fragen*; March, 1901, *Kapital und Kapitalzins—Geschichte und Kritik*, 2nd ed.; September, 1904, *Zinsliteratur in der Gegenwart*; December, 1910, *Kapital und Kapitalzins—Positive Theorie*, 3rd ed., Part I.

² Preface to 3rd ed., pp. xi, xv; cf. xiii.

³ Section II., pp. 162–171.

The foregoing changes are in Part I. The others are in Part II. There is a new subsection (ix.) of Book III., Section 1., devoted to a summary (*Zusammenfassung*), and there is a Psychological Postscript (*Psychologisches Nachwort*), Subsection x., *ibid.*), both in connection with the theory of value. The fifth change is one of arrangement; all the sections on value are now in one Book, the third.

The summary is a careful re-statement of the cardinal principle of Final Utility, on which the whole edifice depends, and a classification of goods so estimated. The author declines to admit Final Disutility as a ground of separate classification (p. 310).

He admits that in a minority of cases the negative feature appears, and then the value of goods is estimated not by their positive contribution to welfare but by their aid in defeating harm. Some would say, the majority includes the cases where the goods bring pleasure, the minority where they prevent pain. But our author is careful to explain in this and the following section (the Psychological Postscript) that, if the phrases "pleasure" and "pain" are thought to commit him to Hedonism, he will have none of them. The Postscript seems very judicious. Many of us, at least, will agree that to bring psychological discussions into economics is to introduce disturbing elements there (*storende Fremdkörper*) (p. 327).

Nevertheless, in Excursus x and xi. Professor Böhm Bawerk goes into some detail over psychology, in the tenth dealing almost entirely with Professor Œhel and the quantitative measurableness of feelings; in the eleventh with Bentham and Jevons on future wants, "present anticipated feelings," as entering into estimates of present value. He leaves the exact influence of them an open question (p. 325), a happy hunting-ground for the psychologists, who are not agreed among themselves on the matter. He says in effect: "If I am told that as an economist I ought not to have raised the question at all, but relied on the ruling doctrine of the professional psychologists, I must reply that, alas! there is no ruling doctrine" (p. 326). Yet he sees we must have a working theory if, for example, we are to discuss such a motive as provision for the future. Lujo Brentano, who frankly calls this motive an exception, *sui generis*, ranking it as an actual present need (p. 330), is handled with unusual acrimony. The discussion of a kindred subject, Disutility, in Excursus ix, proceeds under a drier light. It is a very pretty quarrel. Jevons and Gossen had both remarked that stage by stage the pain of exertion tends to be greater than the pleasure of reward, and the workman, if free to do it, will stop just at the point where the utility and disutility,

the pleasure and the pain, balance one another. It is not Jevons, however, but Professor Edgeworth who introduces disutility broadly as a co-ordinate factor in the normal determination of value. Professor J. B. Clark would go even farther, and make it the predominant partner. But Professor Edgeworth avoids this extreme, and is even careful to except from co-ordination the cases where the workman is not free to stop, and labour is therefore not a variable. He remarks at the same time on the liberty of the labourer to change his calling if too disagreeable, and his power to stop when he pleases at piecework; and he holds that invariableness is a feature, not of the majority, but of the minority of cases. "The desire of diminishing disutility is one of the motives which bring about economic equilibrium." Still, he allows that the "disutility" is not the vulgar "cost of production"; and Professor Böhm Bawerk, with some reason, claims him as practically admitting that value does not correspond to the effort and sacrifice involved in production, when he admits that articles freely produced, in the conventional sense, are produced at fixed wages and in fixed hours of labour, where no "disutility" can come in at all. The whole question between the two economists is thus about the estimate of a quantity "not susceptible of exact measurement."¹ Professor Edgeworth is one of the critics who fare best in the conflict as a whole. He had made an impression on the text of the third book² by bringing out the drawbacks of typical examples (like horses) that are indivisible goods, and the advantage of those (like corn) that admit of "nicely calculated less and more."

The debate on Disutility, however, was an affair of outposts when compared with the battle in *Excursus viii.* over the relation of Cost and Value. Though our author admits that Jevons spoke too absolutely when he said, "Value depends entirely upon utility. The value of the labour must be determined by the value of the produce, not the value of the produce by that of the labour," it was substantially the very position that he himself maintains in this *Excursus* against Professor Marshall and Professor Schumpeter. The *Excursus (vii.)* on the theory of the value of "Complementary Goods" is more nearly a discussion among friends, Professor Wieser receiving the largest share of the criticism. Our author points out the danger of

¹ Prof. Edgeworth in *ECONOMIC JOURNAL*, December, 1894, p. 724; *cf.* September, 1894, pp. 518-521, and 719-724.

² Section II., pp. 382-388 (3rd. ed.). See *ECONOMIC JOURNAL*, June, 1892, pp. 333, 334.

treating the alternatives, in an estimate of final utility, cumulatively, as if to be arithmetically added together (pp. 186-190).

Readers of the first part of this third edition had already encountered in its Excursus (i. to v.) discussions akin to those that now meet us in Part II. in the formidable twelfth Excursus of nearly one hundred pages on the relation of Professor Böhm Bawerk's third reason for the different estimates of the value of present and future goods to the other two. The third was "the technical superiority of present goods over future" as means of production. Facing the inevitable risks of every attempt to put such a case in a nut-shell, we may put our author's view as follows:—The long way of production brings, as a physical result, a greater quantity of goods (it may be with a less value per unit, but with a larger sum-total of values) to him who adopts the long way now instead of procrastinating. Is a regard to this physical result to be taken as a distinct and third reason? Our author says: "Yes, to get *more* is not the same reason as to get *sooner*" (400 note). The first two reasons were: (1) the presumable difference between our wants of to-day, together with the means of providing for them to-day, and our wants of the future with the means of provision then; (2) the general human tendency to make light of the future. As it is Professor Böhm Bawerk's view that, if the productiveness of the longer way ceased to exist, the phenomenon of Interest would cease to be of much account (pp. 341, 400), he could hardly be expected to surrender even to such opponents as Professor Irving Fisher and Bortkiewicz, who deny the existence of the "technical superiority" and say the third reason depends on the other two. He presses them hard, and it will not be easy for them to meet some of his arguments.

Excursus xiii., the last but one of a controversial nature, relates to the attitude taken by Professor Cassel and Dr. Landry towards the author's view of Durable Goods as concerned with Interest. Professor Cassel's writings are well known in England. Dr. Landry is one of the few French writers who have pursued the same general direction as the Austrians, and he has already shown himself a writer of some authority.¹

It remains to be said that the last Excursus is one of the only two of the long series that are old friends, viz., the Reply to Dr. Robert Meyer on the "Exploitation theory of Interest," formerly Appendix II., now Excursus vi. (the last of Part I.), and the note

¹ His chief writings are *L'Intérêt du capital* (Giard, Paris), 1904; *L'utilité sociale de la propriété individuelle*, 1901.

on "the Amount of the Initial Fund necessary for entrance on a period of production of definite length," formerly Appendix I. now Excursus xiv., and last of the whole series.

The book is a remarkable achievement even for Professor Böhm Bawerk. The addition to the text of Dissertations on such a large scale is probably new in economic literature, though not completely unknown elsewhere. There are 652 pages of text and 473 pages of Excursus, "a book within a book" (434). The Excursus are the most piquant and novel feature. Such appendices as those of Professor Marshall's "Principles" play a different rôle. It may be doubted if the example of the Austrian professor will have many imitators; few, indeed, could follow his example with much prospect of finding readers. "The book requires a strong swimmer." But it will be read widely and prized highly by all serious students of economic theory.

JAMES BONAR

Elementary Principles of Economics. By IRVING FISHER, Professor of Political Economy in Yale University. (New York: The Macmillan Co. 1912. Pp. xvi+514.)

PROFESSOR FISHER does not give us in this book any fresh matter. Almost everything it contains has appeared before in one or other of his previous works—*Nature of Capital and Income*, *Theory of Value and Prices*, *Purchasing Power of Money*, and *Rate of Interest*. The present volume is little more than a combination of the more elementary parts of those books. This description might suggest a shapeless piece of work without coherence or unity of purpose. But the book is not in the least like this. It forms a perfectly organic whole; and it is remarkable how naturally and easily the various parts fall into their places as integral portions of a large scheme of economic analysis. It would seem that Professor Fisher has for many years had this general scheme in his mind, and that he has always conceived his other works essentially as developments of its definitely related parts. Certainly the book is entirely free from the ordinary faults of a compendium.

We commence, as is to be expected, with *The Nature of Capital and Income*. We are familiarised with Professor Fisher's definitions of Wealth, Property, Capital, and Income, and are duly introduced to the methods of "Balances" and "Couples," the nature of "Interactions" and the rest. After the "foundation-stones" are thus laid, the transition to the next part

is easy. A knowledge of prices has been assumed in the discussion of all the above conceptions. The determination of prices, therefore, next demands study; and, before individual prices, the general level of prices. The substance of the Purchasing Power of Money is accordingly expounded at considerable length. Then follows a brief statement of the theory of value to account for the determination of particular prices. Next, the problem of interest finds a natural entrance; and the book is finished off with a rather unsatisfactory section entitled "Distribution."

It is only necessary to say further with regard to the matter of the book that Professor Fisher hardly seems to justify the claim he makes in the Preface to have avoided "controversial matter." Many of his arguments, notably his explanation of Interest, acquire from compression a more rather than a less controversial character. And the criticisms which his works have encountered have generally been directed far more against the fundamental notions than against the elaborate developments which he omits from the present volume. English readers, too—familiar with Dr. Marshall's celebrated explanation—will regret that Professor Fisher has retained his singularly weak account of transitions in the price-level. He commences by assuming without argument that an increase in the quantity of gold "through the equation of exchange will cause a rise in prices," and then argues at length how that rise will provoke a further rise, then a reacting fall, and so on in a never-ending series; thus showing neither how prices rise in the first instance, nor how ultimately that rise is sustained. But there is no purpose to be served in reopening here these old controversies: and further comment must bear upon the aspect of the book which is new, namely, its character as a whole, and its claim to the title of a text-book on *Elementary Principles of Economics*.

In this regard Professor Fisher claims the test of experience. This book has had "thorough trial for two years in the classrooms at Yale, under nearly a dozen different instructors." And these instructors "have usually become extremely enthusiastic over its 'teachableness,' although many of them had begun its use with grave misgivings." To confront this testimony of converted agnosticism with criticism of an *a priori* nature may savour of presumption; so it will be well to say that the teachableness of the book is not in question. After all, any book by Professor Fisher would be teachable. The clear-cut vigour of his style would secure that, if nothing else would. And it is his style and not any peculiar merit of his matter or method that probably

accounts for the teachableness which the Yale instructors have discovered in the present book. Professor Fisher, indeed, attributes it to the fact that he has followed the "pedagogical" as opposed to the "historical" and the "logical" methods of other economists. He claims for his method the advantage of beginning with those topics most familiar to the students, such as "personal pocket-money and bank accounts, household expenses and income, the fortunes of the rich." But whether the student is interested in these topics more than in those with which economists generally commence, whether his imagination is really more strongly gripped by ideas upon personal pocket-money and bank accounts than by the speculations of that "Robinson Crusoe economics" for which Professor Fisher entertains such unqualified contempt is probably a question which would have to be answered very differently of different students, and otherwise than the author imagines of students as a whole. Professor Fisher, indeed, seems to think of all students as being possessed of a mathematical or even a mechanical turn of mind. It is always by ingenious mechanical illustrations that he seeks to enliven his arguments and impress them on the memory. Even when he comes to the solemn problem of the unequal distribution of wealth, it is by the conjecture that the grouping of men according to income could be illustrated by a bell-shaped figure that he thinks most powerfully to affect the imagination. There is no reason to believe that this is particularly good pedagogy.

But besides the question of teachableness there is the question of the value of the matter taught. What kind of principles are these with which Professor Fisher would equip the student? How useful is the point of view which they would give him? What kind of an introduction would they provide for the understanding and study of concrete problems? In connection with considerations of this nature, the book appears to be open to serious criticism. As an instrument for understanding the most important social and economic questions it is extremely weak. Of political economy—in the literal sense of the term—the treatment of economic questions as they affect the State—there is none. The social point of view is entirely absent. Indeed, Professor Fisher's analysis hardly lends itself to the consideration of the advantages or disadvantages of systems or circumstances from any point of view. It does not suggest possible lines of progress nor warn us off dangerous though specious policies. It does not facilitate in any way the tracing of cause and effect. It is only

in the middle of the section on "Distribution," which concludes the book, that we learn anything of the production of wealth, and that land, labour, and capital have something to do with it. And there is nowhere any but a purely incidental mention of machinery, or large-scale production, or any of the big features of the industrial system of the present day. And as a result Professor Fisher's principles seem to have really very little to say to the questions of "applied economics," for which he hopes they will serve as an introduction.

But perhaps this criticism is unfair, for the author is aware that his book does not cover "the whole subject of economics." He argues with justification that "no such 'complete' book exists, since no author is capable of writing it, and that all which aim to be complete lack at least half of the subject-matter here presented." In so far as this book is to be regarded as supplementary to ordinary economic text-books it is highly valuable. It brings in a vivid way a number of hitherto isolated and largely neglected branches of economics under one comprehensive view. It is only when it is proposed to substitute this work for the quite different analysis which generally passes for economics that it is necessary to enter a protest.

H. D. HENDERSON

Charakterbilder. By GUSTAV SCHMOLLER. (Munich and Leipzig : Duncker & Humblot. 1913. Pp. viii + 302.)

THE twenty-two essays and addresses which Professor Schmoller has brought together in the present volume vary greatly in importance, and have been published or delivered at many different dates extending over a long period. Though the majority of them are products of the present century, some of the most important date from the years 1896 to 1898; one, indeed, was written as long ago as 1863. This last, an essay of only 2½ pp. on Bogumil Goltz, has no very obvious claim to inclusion in this collection except as a very early specimen of the author's style; we are afraid that the English reader, not already acquainted with Goltz's career, will still remain in almost complete ignorance of his achievements and importance. The other papers deal with statesmen, administrators, certain more or less representative leaders of trade and industry, historians, economists and social reformers—all, with one exception, Germans. Originally produced in most cases as commemorative or memorial addresses or notices, these papers have the character of "appreciations," though the

note of criticism is by no means absent. Their length varies from 50 to 2½ pages, and bears frequently little relation to the importance of their respective subjects. We confess to some disappointment on finding that the essay entitled "Was ist uns Friedrich List?" is no longer than that devoted to Goltz, and that 3 pp. are deemed sufficient for a study of von Miquel.

Some of the papers included in the volume are already well known; the four letters on the "Social and Economic Position and Importance of Bismarck" have long been recognised as the most illuminating account and criticism of one part of that statesman's activity, whilst the brilliant study of the two nationalist historians, Sybel and Treitschke, is an established classic. Of the less familiar papers now printed some, we imagine, are likely to be passed over rapidly by English readers (as, for example, those dealing with the administrators Althoff and Thiel, or such men of business as von Mevissen, Kilian Steiner, or Geibel); but there are others of great interest and value. Such are the critical account of the economic doctrines of Ernst Abbe and the remarkable experiment in industrial organisation inaugurated by him at the Zeiss optical works at Jena; the masterly biographical sketch of Rümelin, who made himself no inconsiderable place in German history as a politician by the part which he played in the strenuous days of '48, as a statesman by the reorganisation of education in Württemberg and the adjustment of the relations between the State and the papacy, and as an economist and statistician by his contributions to the study of the population question; and the sympathetic and surprisingly laudatory essay (of 1907) on the personality and policy of Prince von Bülow.

It is almost unnecessary to say that these papers show all the qualities which we have learned to associate with Professor Schmoller's lectures and writings, and have enabled him to exercise so potent an influence upon economic thought, both in Germany and elsewhere. There is great learning and wide range of interest; a critical spirit which is almost always kindly and based on a sympathetic understanding of the motives and aims even of those with whom he is at variance (this is strikingly shown in the essay on Friedrich Naumann); acuteness of analysis, independence of judgment and lucidity of exposition. There is a power of generalisation which is always stimulating, even though it occasionally, as we think, leads Professor Schmoller astray, as when he finds (p. 96) in an alleged remark of the then Prince of Wales after Sedan, that he would one day avenge it,

an indication of the real nature of British feeling towards Germany since 1870; or draws from certain criticisms levelled against the Conservative Ministry which fell in 1905 the conclusion (p. 106) that in England "even to-day half of those called to Ministerial office are the sons, nephews, brothers-in-law, and sons-in-law of the Prime Minister"; or commits himself (p. 98) to the proposition that "historically and naturally Germany is not, and will not become, an 'Eroberungs-staat.'" Finally, there is intense interest in present-day problems, and the conviction that it is the function of the economic and political historian who would be worthy of his name, to draw from his study of the past precepts to guide his countrymen in the present.

Students of Professor Schmoller's other writings will not be surprised to find that one line of thought runs through and colours all the essays before us. They are almost all studies of men who in divers ways have contributed substantially to the creation and organisation of that modern Germany which, in spite of some defects, appears to Professor Schmoller to approach as nearly as human nature permits to the ideal State, and to be the most potent instrument yet devised for the political and social elevation of mankind. Professor Schmoller's opinions as to the functions of government are too well known to need exposition here; they are emphasised in the volume before us by the contrasting essays on Adam Smith and List. And as the German Empire has been made and shaped by Prussia, Professor Schmoller, though himself a South-German by origin, has for Prussia, its princes and bureaucracy, an almost passionate enthusiasm. It is fitting, therefore, that this volume should open with an address on Frederick William I., and that this should be followed by an oration on the first Emperor; but even the commemorative character of this latter discourse, delivered in 1897, hardly mitigates the surprise with which we read its final sentence: "Das feste Steuer der Hohenzollern wird uns führen, und der Segen Kaiser Wilhelms I. und seiner Regierung wird auf uns ruhen." Professor Schmoller's great admiration for Sybel and Treitschke is due in no small measure to their Prussophil fervour; for him it is one of the chief claims of Rümelin to political importance that in 1848-9 he, "almost alone in South Germany," recognised that the political future of Germany depended on the establishment of an imperial authority hereditary in the Prussian royal house (p. 151); the South German banker, Kilian Steiner, is praised not least because (p. 236) as "an enlightened German patriot, he favoured the leadership of Prussia."

The Prussian state system, based on the theory of an enlightened monarch, aided by a skilled and impartial bureaucracy, raised above parties, keeping the war of interests within bounds, and ruling men, even against their own wishes, for their good, is for Professor Schmoller the highest form of government. To no suggestion of "responsible government" for Germany will he listen: the racial, religious, economic antagonisms of parties render it impossible to expect anything but disaster from the adoption of such a system of government as prevails in the United Kingdom; the dependence of ministers upon the monarch alone is the sole practicable method; and those ministers can only be drawn from the bureaucracy, for ministers chosen from the ranks of men of business have seldom been successful (p. 109). English students will admire the candour of these judgments as to political inaptitude and the bitterness of economic controversy; but when they consider them as pronounced upon a nation which has achieved so much in other fields, and when they reflect also upon the burdens both of tariffs and armaments which have been brought upon Germany, and in no small measure upon Europe also, by the Prussian policy of the last half-century, they may doubt if the Prussian system really merits all the praise which Professor Schmoller and those who think with him have lavished upon it, and if neo-mercantilism has really been of service to humanity.

In the preface to the volume before us Professor Schmoller explains that, now approaching the completion of his seventy-fifth year, he has felt compelled to give up some part of his university activities, in order to devote his strength and time, so far as may be, to literary work. It may then not be out of place to express here the hope that he may be long spared to give to Germany and the world the fruits of his great learning and wide experience, and to enjoy the respect and regard in which he is held by all economic students, both those who know him only by his books and those who have had the added advantage of immediate acquaintance, however slight, with a strong and gracious personality.

PERCY ASHLEY

Industrial Evolution in India. By ALFRED CHATTERTON, C.I.E.,
Special Adviser for Industries and Commerce in Mysore.
(Madras: The "Hindu" Office. Rs. 3.)

IN this volume Mr. Chatterton, who has himself done excellent work in Southern India, especially in encouraging indi-

genous industries, republishes a number of papers and articles written by him from time to time on the subject. His views are valuable, both because they are founded upon careful study of existing conditions and on practical experiments entered upon with a view to improving the methods employed, and because he takes a broad view of his subject and discusses it with due regard to the circumstances of the poorer classes of workers, not only in the towns but in the villages. He gives a detailed account of such branches of industry as chrome tanning, hand-loom weaving, wood distillation, milk products, and well irrigation, and describes the methods in which those industries have hitherto been carried on, and the endeavours made to increase the efficiency of the labour employed upon them, which have in several cases met with considerable success.

The most interesting part of the book is that in which he states his general conclusions as to the present needs of India in the matter of industrial development. He points out that all the mills, workshops, and factories in the country, which are worked on modern lines, only employ about one million people; and that while it would no doubt be advantageous to increase the number of factories worked on a large scale, what India chiefly requires is such improvements in the traditional methods employed by small men working independently or in small bodies as will be within their reach, and will enable them to compete with manufactures imported from the more highly-developed industrial communities of the West, without necessarily leaving their homes and congregating in large towns.

In this connection he discusses the probable effect of a tariff imposed for the protection of infant industries, and it is interesting to find that, unlike most economic thinkers who have approached the question from the Indian point of view, he has arrived at the conclusion that such a protective tariff would not be to the advantage of India. His arguments on this subject were chiefly addressed to the educated classes in India, to whom he pointed out that, while the imposition of protective duties on manufactures would no doubt encourage the development of factories in India, and thus increase the amount of employment given on the factory system to workmen and subordinate clerks, it is probable that it would lead to the establishment in India of enterprises financed by capital from abroad, in which all the important posts would be monopolised by highly trained technical experts, also imported from abroad; so that, while such a policy would increase the cost of manufactured goods to the Indian

consumer, it would not be likely to make any large addition to the openings for employment of indigenous capital and indigenous talent. He therefore advises the educated classes of India to give up hopes of seeing a protective tariff imposed, and to devote themselves to improving their own technical knowledge and to urging Indian capitalists to finance such industries as promise to be profitable under a system of free trade, and especially those which will afford occupation to small men or small bodies of workers.

He dwells with much force on the one-sided character of the education which has hitherto been provided for Indian students, and urges that it should be made less literary and more practical than hitherto. He advocates hand and eye training, a cultivation of the powers of observation, and the co-ordination of the various faculties in the service of their possessor, as opposed to the mere development of the mental powers along comparatively narrow lines, and holds that the aim of Government in the matter should be to train the youth of the country, first in schools and colleges, and then in workshops and laboratories, and finally, to start them in life, giving them practical work to do under competent supervision until they get accustomed to the new atmosphere and surroundings, and are able to launch forth by themselves. It is satisfactory to see that an educational policy of this character is gaining favour in India, and that the responsible authorities are already moving in this direction.

Mr. Chatterton gives some examples which go to show that the Indian workman is ready to adopt new and improved methods, when he is satisfied that they will enable him, by the employment of means within his reach, to increase his net out-turn, or render his labour more efficient. The grower of sugar-cane has in most parts of India discarded the old wooden mills in favour of those made of cast-iron, with the result that the work is done with less labour, and a higher percentage of juice is extracted. In many places the weavers have recognised the advantage of subdivision of labour so far as to prepare their warps in bulk on rotary mills. In others, again, the fly-shuttle loom has been substituted for the native hand-loom, with the result that the speed of weaving has been doubled; wood and metal workers almost invariably use some tools of European manufacture, and sewing-machines are now to be found in almost every tailor's shop. Mr. Chatterton himself has given special attention to the problems of tanning, weaving, and irrigation from wells as conducted by men with small means, and has introduced improved

methods, which are being gradually adopted in Southern India. As he truly says, one of the great problems which India offers to the civilised world is the application of the resources of science, engineering, and commercial experience to an attempt to raise the worker, and pit his skill, ingenuity and adaptability against the large factory and the organised trust, with whose products he has to compete; in short, to develop the function of the man rather than the power of the machine. There is work on these lines in India for many Chattertons.

J. WILSON

The Cotton Manufacturing Industry of the United States. By MELVIN T. COPELAND, Ph.D. Harvard Economic Studies, Vol. viii. (Cambridge, U.S.A.: Harvard University. 1912. 8vo. Pp. xii+415. Price \$2 net.)

THIS volume, by the Instructor in Commercial Organisation in Harvard University, was awarded the David A. Wells prize for 1911-12. It gives a succinct history of the cotton and knitted goods industries of the United States, an account of their present position and organisation, and a comparison of them with the cotton industries of other countries. The history of wages has been omitted "because of the vast amount of time that would be required to secure the data on which to base any reliable conclusions," and no attempt has been made to compare the cost of living in different countries. These omissions are regrettable but intelligible. A table is given on p. 130 showing that the rate of wages for weaving regular print cloth in Fall River discloses little advance between 1884 and 1908, and the author might well have supplemented it by a summary of the information, incomplete though it is, that is given in the Census volumes. This is almost the only complaint which one feels inclined to make about this valuable book, which is of equal interest to the cotton trade in the United Kingdom and to the professed student of economics. Not only does it give a very thorough description of the competitive power of the American industry, but it throws light on some important economic problems.

In 1860 there were 1,091 establishments in the United States engaged in cotton manufacture, employing 5,200,000 spindles and 122,028 persons, and producing an output valued at 115,700,000 dollars; in 1910 there were 1,208 establishments with 27,400,000 spindles and 371,120 employees, and the value of the output was 616,500,000 dollars. Measured by spindles, the United States

are now the second cotton-manufacturing country; measured by weight of raw cotton used, they are the first, for in 1905, with less than half the number of spindles owned in the United Kingdom, they consumed 13 per cent. more cotton. "This is explained by the larger production of fine yarn in England and the more extensive use of the mule, on which the output per spindle is about two-thirds of that on the ring frame." The ring spindle was invented by an American in 1831, and in 1870 the number of ring spindles in use in the States slightly exceeded the number of mule spindles; in 1905 there were more than three times as many ring spindles as mule spindles in operation. In England, in 1909, there were five times as many mule spindles as ring spindles. The explanation of this divergent development lies mainly in the fact that no skilled class of operatives grew up round the cotton mills of America, which were regarded only "as a convenient place whence to get a start in life." The supply of skilled immigrants was insufficient, and consequently the success of the trade depended on adapting machinery to the use of the unskilled immigrant, and especially of women and children. Such a machine is the ring frame, which requires little experience and skill, and, with its greater output per operative, secures a reduction of labour cost. In the United States, labour cost is dominant and every effort is made to lessen it; in the United Kingdom, to save in raw material is the important thing. This distinction runs through every department of the industry. In the preparatory machinery all the improvements are British, because British manufacturers have felt the necessity of economising in raw material, as the competition of other countries forced them more to fine spinning. The use of the ring spindle does not grow quickly in England because the short-stapled cotton used in spinning low counts in that country would not stand the strain of the ring frame. Further, ring weft yarn must be spun on bobbins and not on cops, and the freight charges on the former from spinning-mill to weaving-shed would increase expenses. In the United States the yarn is usually spun and woven in the same mill, and, says Dr. Copeland, in the States "the combination of spinning with weaving is as much a result as a cause of the preference for the ring spindle."

The same pressure of labour cost has led to the extensive use of the Northrop loom (invented by an Englishman) in the States. Apart from the facts that the mule cop is not so well adapted as the ring-frame bobbin for use with that loom, and that to scrap machinery is always costly, Dr. Copeland thinks that "its use

will probably be more limited in England than in the United States. . . . The loom has been adapted but gradually to the weaving of fine goods, and even now many of the fine goods manufactured in England could not be woven advantageously on the Northrop loom. Thus, there is a considerable field in England which it cannot reach, a field which is not only absolutely, but relatively, larger than in the United States. In spite of the advance in the production of finer cotton cloth in this country, the bulk of our output is still the coarse and medium grades of plain goods."

Dr. Copeland is very emphatic that the growth of the cotton and cotton-knitted goods trades is mainly due, not to the tariff," but to American inventive genius stimulated by the compulsion to keep down labour costs.

The advantages of large-scale production appear to be fully obtained in America by a plant of 50,000 to 75,000 spindles and one to two thousand looms. As the trade has grown the product has become more diversified and the mills more specialised. A few companies have mills with from 100,000 to 650,000 spindles, but these are really combinations of several mills and are divided into independent departments. Association and amalgamation of companies have not been successful in spinning and weaving, because all the possible economies of production are realised at an early stage. This fact supports the theoretical view that there is a limit to the growth of the business unit. Its importance must not be over-strained, however, for the typical modern Lancashire mill has about 80,000 spindles. Moreover, the theory has always been expressed too narrowly, for it is confined to production, whereas the great economies of amalgamation lie in the sphere of distribution, partly directly through economies in selling expenses and partly indirectly through elimination of the waste of competition. These influences manifest themselves in America through the increasing association of manufacturing and selling houses, a development which proceeds indifferently from both ends. The community of interest among New England cotton manufacturers is another important factor in the restriction of competition. It operates through mutual stock-holdings, and especially through the interests which selling houses, who finance important sections of the trade, have in manufacturing firms.

The organisation of the American cloth market in its early years took the form of auction sales. This was the method by which imported goods were disposed of, and, as the import trade declined under the influence of the early tariffs, merchants turned

their attention to financing the new cotton industry and the current method of sale was naturally adopted. As the country became more settled and transport and banking systems more developed, sales through houses selling on commission, and, later, sales direct to large customers, have become more characteristic of the business. In 1851 about 7,500,000 dollars' worth of dry goods, two-thirds foreign and one-third domestic, were disposed of by auction, and it is significant of the youth of American business development that as late as 1897 there were large public sales of surplus stocks. One important function of the selling house has been the financing of the trade by granting long credits to customers, a function which is still of importance in the marketing of the products of southern mills, whose live capital is seldom adequate. For most of the New England manufacturers, however, it is no longer necessary to obtain financial aid either through advance of money or endorsement of notes. The urgency of keeping down labour costs compels the mills to run on large orders; as a rule, no order for less than 2,000 yards is accepted, and some mills insist on orders of 6,000 or 10,000 yards of a single design. This factor in production has the result of making the selling house more necessary in distribution. The most modern agent in distribution is the merchant purchaser of grey goods who has them bleached, printed, &c., to his order, and his prominence has been of late becoming more evident. The market is becoming more settled and at the same time more diversified, and corresponding to these changes the American organisation is approximating to the English so as to adjust the growing volume of trade more closely and speedily to the varying demands.

Asia is the largest market for American cottons, especially Manchuria, which imports almost exclusively cheap drills and sheeting for making padded garments. Canada is a more stable market, for which the United States has an advantage of position despite the tariff. In South and Central America English and Germans have established close commercial relations by means of steamship lines, banking houses, and other mercantile connections, and consequently special efforts will require to be made if the export trade of the United States cotton industry is to develop largely. The United States import trade is mainly in lace and fine goods, and has grown despite increasing attempts to restrict it by heavy duties. The whole of the chapter on import duties is worth reading, but there is only space to quote the author's conclusion: "If the manufacturers were willing to give up some of

this useless 'protection' and seek a reduction in the duties on their supplies, they would strengthen their competitive position. Machinery, which is protected by a forty-five per cent. duty, costs more in America. . . . The duties on dye-stuffs and other minor requisites are also handicaps to the American cotton manufacturer in his competition for a foreign market."

Only a brief reference can be made to the great development of the cotton industry in the Southern States from 561,000 spindles in 1880 to about 11½ millions in 1910. Though this is partly due to savings in freight, power, and taxes, "the cornerstone of the structure has been the supply of cheap and tractable labour." This local supply of labour has been exhausted, with the result that wages have risen, while at the same time the publicity that has been given to the deplorable extent to which child-labour was employed has led to some efforts at restriction and to some attempts to improve social conditions. The competition of the South in coarse goods was severely felt, especially during the depression of 1893-7, and the New England manufacturers were to some extent forced to the manufacture of fine goods. The advantages of the North, however, in capital and credit facilities, in proximity to markets, in experience, and in climate, have in the long run outweighed the temporary advantage of cheap labour. It has been predicted that the North would be restricted to the manufacture of fine goods and the South to coarse goods, but "it is by no means certain that this will be the ultimate outcome. On the one hand the production of coarse goods shows no sign of diminishing in the North, and on the other hand several fine goods mills have been erected in the South. Furthermore there may grow up in the South a permanent class of operatives who will develop especial skill in the manipulation of cotton while the inundation of foreign immigrants continues in New England. The one prediction is as good as the other."

The last 120 pages of the book deal with the position of the United States compared with that of the other leading cotton-manufacturing countries, but they are so packed with information that they defy further condensation. These, and several other excellent chapters which have to be passed over very cursorily, the student must study himself, but he will do himself wrong if he passes over a single page of this excellent book without careful consideration.

HENRY W. MACROSTY

Intorno al concetto di Reddito Imponibile e di un sistema d'imposte sul reddito consumato. By Luigi Einaudi. Pp. viii + 105. (Torino : Vincenzo Bona. 1912.)

SIGNOR EINAUDI'S important work takes as its starting-point the familiar distinction between income received and income consumed. Income received is the addition which accrues to a man's possessions during the course of a given period of time; income consumed is this addition *minus* such part of the accretion as is added to capital either in the form of machines or of personal capacity. From this familiar distinction he proceeds to the no less familiar thesis that a tax on income received implies double taxation of that part of income which is saved, and that, if every pound of income is to bear an equal burden, taxation must be confined to income consumed. Hence, the practical inquiry, By what sort of fiscal arrangement can this state of things be brought about?

To ascertain directly the amount of income consumed for purposes of taxation is impracticable owing to the facility with which evasion can be practised. Consequently, resort must be had to one or other of the two following expedients, namely: (1) the taxation of the material goods and personal services on which a man spends that portion of his income which he elects to consume; and (2) the exemption from taxation of such portion of income received as a man is *presumed* to save. Of these two expedients the former is confronted with difficulties of application, the latter with a difficulty of principle. It is plain that, if an equal rate of taxation were imposed upon all "consumables," the whole of income consumed would be taxed once at the rate selected. But the adoption of such a policy would necessitate an amount of State inspection over domestic and business arrangements that would be not only intolerably irritating, but also immensely expensive. It is essential, therefore, that taxation be confined to forms of expenditure which can be discovered with reasonable ease, such as expenditure on house-room or servants, or on commodities that necessarily pass through a few ports where Customs officers can be posted, or on commodities that are mainly manufactured in large establishments susceptible to supervision by excise officers. This necessity would not, of course, prevent the taxation of consumables from serving as a means to the equal taxation of all income consumed, if everybody was accustomed to consume different goods in the same proportion. Since, however, no custom of this kind exists, it follows that

the taxation of consumables, taken by itself, cannot provide a system conformable to the "postulate of equality." Nor is this all. Up to this point it has been tacitly assumed that all saving takes the form of external objects. Signor Einaudi now shows, however, that, besides investment in things, there exists also investment in people. To satisfy the postulate of equality, the latter as well as the former must be exempted from taxation. But investment in people includes whatever part of expenditure on house-room, personal services, food, clothing, and so on, goes to build up the productive powers of men, and, more especially, of their children. To separate in any exact way this form of expenditure from expenditure on consumables that are not capital goods is impossible; for the same commodity, according to the circumstances in which, and the persons by whom, it is consumed, sometimes is, and sometimes is not, a capital good. The best we can do is to lay down a rough approximate rule to the effect that those goods and services should be specially selected for taxation on which is spent income left over *after* the satisfaction of vital needs. Even yet, however, there remains a final difficulty in the way of accepting a system of taxation of consumables as the right practical sequence to the postulate of equality. This difficulty arises out of the fact that, after a point, increase in the rate of tax levied upon any commodity yields a diminishing and not an increasing revenue. Consequently, this system may prove incapable of providing the State with the money that it needs, and it becomes essential to combine it with some other device.

The alternative expedient referred to at the beginning of the preceding paragraph was the taxation of income received—in the manipulation of which the convenient device of the levy at source can be employed—coupled with the exemption of such portion of this income as is presumed to be saved. The limit above which this exemption is made will, of course, be different for different classes of persons, for those with large families and those with small families, for those with incomes derived from their own work and those with incomes from investments, and so on. The exemption, however, must in every case, for practical reasons, refer to classes and not to individuals. Herein is the difficulty of principle, referred to above, with which this expedient is confronted; for the amount of saving which is presumed in respect of any class necessarily refers to the average member of that class, and is, therefore, necessarily erroneous in respect of those members—and they will be numerous

—whose savings are greater or less than the average savings of the class.

From what has been said it is sufficiently obvious that neither the expedient of taxing consumables nor that of taxing income received, with exemptions for presumed savings, nor any combination of the two, can provide a system wholly in conformity with the "postulate of equality." Nevertheless, Signor Einaudi shows that not only is it possible in practice to advance a considerable distance towards such a system, but that this is actually done, not consciously, perhaps, but none the less effectively, in many parts of the fiscal machinery that is actually in operation in modern States. Thus, a step towards the required system is taken whenever a higher rate of taxation is imposed upon unearned than upon earned incomes, for, other things being equal, the possession of an earned income may be presumed to render larger savings necessary than the possession of an equal income that is unearned (that is to say, derived from investments). A like step is taken when a general income tax is associated with a special tax on property, whether levied annually or on occasions upon which, owing to the death of the owner or for other reasons, the property changes hands. This system, like the preceding, implies that, of two persons with equal incomes, that one who needs to save more will, in general, be taxed more lightly than the other. It is evident that Signor Einaudi looks with approval upon these and other similar devices.

What has been said will suffice to give a general idea of the contents of this interesting volume. The author on the last page pleads for a criticism directed to the question whether the structure he has built up is rightly based on the postulate of equality, rather than for one directed to this postulate itself. For my own part, however, I am unwilling to follow the line thus laid down. The conclusion which Signor Einaudi draws from his premises I believe to be correctly drawn. But the device of setting up the postulate of equality without discussion and basing upon it an elaborate discussion, is calculated seriously to mislead opinion. This "postulate of equality" in Signor Einaudi's sense, namely, that every pound of income ought to bear an equal burden of taxation, is obviously not given in intuition. It can, therefore, only be defended either as a derivative from some more fundamental maxim concerning equity between persons or on the ground that to act upon it makes for maximum satisfaction. The derivation from "equity" Signor Einaudi does not attempt to establish; nor does it seem to me possible that, had he done so, the attempt

could have succeeded. It is, however, plausible to maintain, and has, in fact, been maintained by many writers, that equal taxation of every pound of income ultimately maximises satisfaction, because it does not interfere with the natural distribution of income between the rival uses of saving and spending. Signor Einaudi himself makes use of an argument of this kind in reference to the taxation of undeveloped building land. But—and this is my fundamental criticism—his postulate of equality, when he comes to apply it to practice, slides away from the meaning that every pound of income ought to be taxed equally, to the quite different meaning that all income-owners ought to be taxed in proportion to their incomes. Both these propositions lead logically to the concentration of taxation upon actual consumption and the exemption of actual savings. But only the second of them leads to the taxation of *presumed* expenditure and the exemption of *presumed* savings. The former of them in no way justifies this arrangement, for the reason that the exemption of presumed savings does not hinder an income tax from differentiating against pounds that are in fact saved as compared with pounds that are in fact consumed. When, at the margin, a man is debating whether to invest or to consume another pound, it will still be the fact that if he consumes it, he will be taxed on it once, and, if he invests it, twice. The distribution which he makes of his resources between the two uses will, therefore, be the same if *presumed* savings are exempted as it would be if nothing was exempted. Thus, it appears to me that Signor Einaudi, in his postulate of equality, has confused two propositions of which the former alone is sufficiently plausible to warrant an attempt to build a theory of taxation upon it. His volume, interesting as it is, would have gained in value if more care had been bestowed on the foundations.

A. C. PIGOU

Industrial Combinations and Trusts. Edited by WILLIAM S. STEVENS, Ph.D., Columbia University. (New York: The Macmillan Company. Price 8s. 6d.)

THIS book is a collection of original documents on the origin, policy, and control of Trusts and similar organisations; and it is invaluable to students of this side of economic development. Though the author has simply published his authorities in their order, the classification and arrangement are so admirable that the book is really an impartial treatment of the Trust problem.

One could wish that a similar service could be rendered us in regard to the Kartels. The agreements which created the original Trusts in oil and sugar, the decisions which upset that method, and the transformation of the Oil Trust into a Holding Company can be read as a consecutive history in the early chapters, and in so short a space as to define easily for the student who comes to the question for the first time the precise steps in this interesting history. Perhaps the most important chapter in the book is that on "Methods of competition and restraint of trade." These methods, as the author remarks, raise the vital question of the "normality" of Trusts. It is his own theory that "the advantages of combination are to be found chiefly in certain methods, and not in the frequently alleged economies of saving of cross freights, &c. It is a very serious question whether, should certain practices be prevented, the alleged natural tendency to combination would not vanish into thin air." For this reason, he devotes a very long chapter to the tactics and strategy of industrial warfare, and it is fascinating reading. Besides the boycott and the buying out of rivals, there are the methods of the "little yellow dog," or bogus independent, company, in great variety; the extract on pp. 326-7 is not without its humour: "If I was not able to regain the (local) trade, I was to whistle by writing a letter, and they would then send on a little yellow dog . . . known as the Climax Manufacturing Company. . . . So we didn't have to lower our prices to the adjoining trade, but the yellow dog got the business." Then there is the organisation of the "Competition Department," at other times the "Ways and Means Department," with its special force of inspectors of other people's business, known as the "knock-out men," in many cases obtaining their information regarding the trade of outsiders by payments to railway officials. Here is a message from headquarters to a "knock-out" man: "Report received, and is satisfactory for a beginner. Try to be more accurate in the information in future, and have report include in full (1) dates when cars arrive, (2) whether box or tank cars, (3) all letters and numbers on cars, (4) contents of cars." And what is to be said of this?—"The defendant . . . caused to be maintained at the factory a display room known as the 'graveyard.' In this room were shown (details) of competing companies which had been forced out of business by the methods above set out. Prominent display cards reporting the names of these companies, the date when they went out of business, and the amount of money lost by them, appeared prominently in the exhibit. . . . This process of intimidating

manufacturers (purposing to go into the business) was known as the 'glooming' process, and the room was sometimes known as the 'glooming' room" (p. 366). The "Gary dinners" offer an ingenious argument on the question when an agreement is not really an agreement.

I do not think it is shown that Trusts owe their existence to such methods, which imply, in fact, both that the combination is already strong enough to use them, and that the attack of the outsider is a constant feature of the history of Trusts. The detail of organisation is one of the striking aspects of American life as a whole; and inevitably it has found its way into industrial competition. Except for bribery and definitely illegal practices, these are instances of competition made quite efficient; and they show the immense difficulty of deciding on the morality of business methods by the use of standards that are purely economic. They show too that, whatever Trusts have done, they have not exterminated competition, but rather displayed its possibilities.

D. H. MACGREGOR

An Encyclopædia of Industrialism. (London: Nelson and Sons. Price 1s.)

THIS is a short volume of reference on the chief problems of Labour and Employment. Most of the articles offer a historical summary of their subjects, an analysis of existing conditions, and an indication of the best sources of information. In some cases there is also given a useful comparison of English and foreign results. The work is in the hands of experts; the article on "Wages" is by Mr. Bowley, on "Strikes" by Professor Nicholson, on "Labour and Politics" by Mr. Philip Snowden, on "Co-partnership" by Mr. Vivian, on "Employers' Unions" by Sir Hugh Bell. Out of the usual run of articles on these subjects is a most interesting statement by Mr. Frank Nasmith of the conditions of "Factory Management." The book should be of special value to workmen's classes and study circles, and to academic students for its useful bibliography of official documents on the social question.

D. H. MACGREGOR

Probleme der Weltwirtschaft: Kanada, Volkswirtschaftliche Grundlagen und Weltwirtschaftliche Beziehungen. By DR. ANTON A. FLECK. (Jena: Gustav Fischer. 1912. Pp. xiv + 367.)

THIS handsome quarto volume forms the tenth of a series of monographs issued under the editorship of Professor Dr. Harms

by the Institut für Seeverkehr und Weltwirtschaft at the University of Kiel. The previous numbers deal with the position of the sailing-ship in international trade, the iron-ore supply of Europe, Denmark, tobacco cultivation in the Dutch Indies, the economic life of primitive peoples, national trade and world trade, Japanese industry, Emden and the Dortmund-Ems canal, the sliding scale for corn duties. The list is an excellent one, and the titles of the forthcoming parts are no less attractive. The present volume first sketches the chief features of the physical structure of Canada and the main lines of the historical and political development of the country. The policy of the Government in dealing with the land and with emigration is next discussed, in order to complete the description of the social basis of the economic life of the Dominion. About one-half of the book is then occupied with a detailed description of agriculture, forestry, fishery, industry, and transport, incorporating all the available statistics. If, as the author says, Canada has not been fully discussed in the economic literature of Germany, his book should fill up the gap in a most admirable fashion. Indeed, there can be few volumes as comprehensive in the abounding supply of English books on Canada. The only serious defect is the want of a number of small sketch-maps in the text, for the large official map which is supplied with the book is not very handy for use by the reader.

The last third of the book deals with the economic relations of the Dominion to the rest of the world, and in particular to the United Kingdom and to the United States. The author holds that Canada is economically dependent on the United States, and that this dependence must be increased by the need of the States for Canadian foodstuffs and raw materials, whether these are obtained by means of a reciprocity treaty or a one-sided reduction of import duties, for the States would pay for those imports by an increased exportation of manufactured or semi-manufactured goods. As Canada earnestly seeks to enter into economic relations with the whole world, and has no intention of limiting her manufacturing activity, Dr. Fleck points out that the combination of these different factors must lead to a greater intensification and complication of the trade-exchange between the Dominions and the States. Finally, he adds, "The danger of a complete absorption of the Canadian State, with its small population, in the powerful economic unit of the United States, with a population which will soon number a hundred million inhabitants, will always be a warning for Canada not to allow economic fusion to

pass beyond a definite limit. The political feeling of independence is developed to a high degree in Canada, as its whole economic and political history shows. For the preservation of political independence power is necessary, and as Canada will not possess this for any period that we need consider, the centre of gravity of Canadian policy must always gravitate more to London than to Washington."

HENRY W. MACROSTY

Die Konzentration im Seeschiffahrtsgewerbe. By DR. PAUL LENZ. (Jena: Gustav Fischer. 1913. Pp. viii + 142. Price m. 4.)

It is more than ten years since the formation of the *International Mercantile Marine Company* under the auspices of the late Mr. J. P. Morgan. The absorption of the White Star Line in this American Trust caused a feeling almost of dismay in this country, and made everybody aware of the existence of combinations in the shipping industry. For several years little was heard about them, although the question of shipping rings and deferred rebates attracted some notice. During the last two or three years much public attention has again been drawn to the subject, partly owing to the numerous acquisitions of the Royal Mail Steam Packet Company, and partly owing to the rumours concerning the intentions of the P. and O. Company.

The reviewer took up Dr. Lenz's book in the anticipation of finding a critical account and explanation of the renewed movement in favour of combinations in the shipping industry, only to be disappointed. It contains merely a brief reference to the latest developments; all the essential material for the writing of the book existed in 1909, when the Report of the Royal Commission on Shipping Rings was published. Dr. Lenz has collected practically no new facts concerning shipping combinations. On the basis of published material, he investigates, from a theoretical rather than from a historical standpoint, the causes, extent and effects of combination in the shipping industry. The various forms which combination may take, *e.g.*, amalgamation, the purchase by one company of the majority of shares in another company, pools and conferences, are carefully described, but the book is a descriptive study only in a secondary degree; primarily it is an analysis of the organisation of the shipping industry.

In more than one case, Dr. Lenz's desire to be strictly scientific in his treatment of the subject has led to the introduc-

tion of matter, which appears to be somewhat superfluous in a short book; e.g., the author might have stated his definition of a cartel, without devoting four pages to discussing the definitions of various authorities; again, he might have classified shipping combinations on his own system, without allotting two pages to criticising the systems of classification of other writers.

DOUGLAS KNOOP

Le Banche e il Mercato Monetario. By MARCO FANNO. (Rome : Athenæum. Pp. 394.)

MR. MARCO FANNO, after having written valuable articles in the *Revista Ligure* on the development of the issue banks (*L'evoluzione delle Banche d'Emissione*) has now published, in book form, his ideas and the result of his studies concerning this important question. Well aware how intimately the position of the issue banks and other banks is connected with the situation of the money market, he has, in the second part of his book, devoted special attention to this market, which, as he rightly explains, becomes more international and more important every day.

What Mr. Marco Fanno writes further concerning the development of banking and the services that are rendered by the banks in charge of the issue of bank notes is, of course, not unknown to those who have made a special study of these questions, but he deserves a word of praise for the clear and comprehensive way in which he treats the different arguments that plead in favour of one single issue bank or of many issue banks. However, whether there be in a country one or more issue banks entrusted with the issue of the fiduciary circulation, it is imperative that such banks, representing, so to say, the credit of the nation, should always apply the principles of sound finance and limit their transactions to such as are permissible to a bank of issue. Unfortunately, the financial history of several countries proves that their issue banks have not always confined themselves to their true mission, but have engaged themselves in transactions involving the loss of many millions, while others have had to suspend payment, showing that the fiduciary circulation of a country is a matter of the highest importance, and which cannot be disturbed with impunity. When issue banks are in danger the consequences and ensuing confusion in business are such that the intervention of the State has always been, and always will be, indispensable to alleviate the evils of a most dangerous situation.

After having dealt with the issue banks, Mr. Fanno gives interesting particulars concerning the development of banking in general, and the great extension which the leading European banks have given to their sphere of action by increasing their capital in order to take over the small country banks, and by creating numerous branches, especially in the industrial towns. His figures concerning the increase of capital of several foreign banks are, however, not entirely "up to date." They do not go further than the year 1907, while it is well known that since then, and especially during the last three years, many banks have increased their capital considerably and created many new branches. But what he says concerning the manner in which the German and other Continental banks are working is worth reading.

Altogether Mr. Fanno's book contains many interesting chapters, and will be of great use to those who want to study the development of banking and the situation of the international money market, which is so closely connected with the discount and gold policy of the issue banks and with the balance of trade and balance of payment of the different nations.

C. ROZENRAAD

Die Arbeits- und Pachtgenossenschaften Italiens. By W. D. PREYER. (Jena: Fischer. 1913. Pp. 228.)

THIS book deals with two co-operative movements, which are in a sense peculiar to Italy, but which certainly possess interest also for non-Italians, and one of which may very well serve as a model to ourselves in our efforts to create a tenant peasantry. On these two subjects Herr Preyer's book is unquestionably the fullest and best now before the public. However, the author considerably overshoots the mark when claiming to be the first in the field to deal with them. Even in the German Press, of whose negligence he makes a point, both subjects have been discussed with a fair amount of fulness something like ten years ago in *Blätter für Genossenschaftswesen*. He is likewise wrong in stating that co-operative renting of land has not extended beyond Italy, Roumania, and some feeble beginnings in Russia. Not to speak of one or two of our own newly-formed Allotments Associations, such as the "Northern," and Mr. W. J. Charleton's "Wayford Tenants," there are eleven flourishing common-land renting societies, of exactly the same type as the Roumanian, in Servia. Moreover, the author is woefully behindhand in his

statistics. Already in 1908 there were known to be about 150 *affittanze collettive* established, and last July the number was given as 160.

It is a little difficult to see why Herr Preyer should have bracketed the *braccianti* societies together with *sindacati* and *consorzi agrari* as specifically "agricultural" societies. They are *working-men's* societies aiming, in the first instance, at self-employment, out of which has grown, as in the ideals of our Rochdale pioneers, the aim of independent settlement upon the land. The *braccianti*—that is, the men who simply bring their "arms" to their job, navvies—however, are generally and properly classed together with the *muratori*, the *suolini*, the *biroccianti*, the *barcaioli*, &c., as *working-men* co-operators. They have made roads, built dykes, built even a short railway, and worked in the Laurium mines. Their movement began much earlier than Herr Preyer puts it, owing—as he rightly explains—to the cessation of railway construction and the like. He talks of 1905. The *braccianti* were busily and sturdily struggling along, conquering for their class a better position and better pay, and holding a large territory at Ostia on improvement lease, in 1893. The Baccariai Act, which is their charter, dates from 1889. In 1894, in the Molinella district, they had made themselves masters of the situation.

These men were thrown out of work, as has been stated. Although in after time they have displayed considerable capacity for striking—for which they were cruelly punished in the dragonades of 1898—they found themselves at the time too weak and disorganised to venture upon a fighting policy. So they sought to obtain independent contracts, dispensing with middlemen. The authorities showed themselves favourable. The Baccariai Act authorised public authorities to give such societies contracts up to £4,000 without asking for security. M. Luzzatti, as Minister, considerably increased the figure, and pressed the matter upon the attention of local bodies. Public authorities, like Count Guiccioli, when Prefect of Rome, and Comm. Dallolio, when Syndic of Bologna, particularly praised their work. In the early days it was a thing to wring admiration from one to see how these poor men laid by out of their takings in order by slow degrees to collect a working capital of their own. Barring the persecutions of 1898 they have done well and prospered. One remarkable feature in their growth to power has been the comparative ease with which they obtained working funds—not (at first, at any rate) from co-operative banks, which one might have expected to be helpful, but from private capitalists.

The *affittanze* movement was grafted upon the original stock about 1901. It was at a special gathering held after the Reggio Congress of that year that the programme was settled. And the *braccianti* accordingly took their place in the *Lega nazionale*—not among agricultural societies. The development was natural enough. All these men were dwellers in rural districts, familiar with agricultural work, and desirous of settling comfortably on *rura*, which need not be *paterna*. Tenancy is difficult in Italy, because the *latifundia*, which, according to Pliny, *perdidere Romam*, are still in the ascendant, and Italian landlords are uncommonly grasping. They would also, not unnaturally, not take the risk of letting in detail to small unsubstantial men. The substitution of a co-operative society, pledging itself in common, like our "Tenant Co-operators," removed one hindrance. And now these common settlement societies appear to flourish. One is particularly thankful to see the movement spreading in so encouraging a way in Sicily, where there is great need of it. The fact that, although these *braccianti* rent in common, they as a rule cultivate separately, does not, as Herr Preyer appears to infer, prove that they are not Socialists—for they consider themselves Socialists to a man—but that common sense is stronger than theory.

Herr Preyer incidentally touches upon *Mezzadria*—the old Roman *Medietas*. But there remains a great deal more to be said under that head. Antiquated as it is, during recent years of agricultural depression *Mezzadria* proved almost the salvation of Italian agriculture.

HENRY W. WOLFF

Co-operation in New England, Urban and Rural. By JAMES FORD, PH.D. (New York: Survey Associates. 1913. 12mo. Pp. 260. Price \$1.50.)

THIS little book, apart from telling British readers about "co-operative" institutions in parts of the United States, ought certainly to prove useful in its own country. The United States literally swarm with institutions, at any rate, of the agricultural type, bearing the co-operative name. They, indeed, number thousands. However, of all these teeming thousands, there are very few indeed that would pass muster before a genuinely co-operative tribunal. The majority are rather "rings" formed in opposition to traders' rings, which in the past have truly worked sad havoc among farmers. And yet the United States need

co-operation. Three Presidents—that is, the present and his two immediate predecessors—have borne public witness to this. Under the special benison of the Senate the Southern Commercial Congress is sending out a Commission of some hundred representatives to Europe to learn what co-operation applied to agriculture is. In America this question has for a little time past occupied many minds. The State Department of Wisconsin has particularly distinguished itself by its researches. The “Russell Sage Foundation,” of New York, which publishes the book here noticed, has turned its attention to the same subject, and, as its General Director informs me, the object of the book is quite as much to show Americans “what may *not* properly be called co-operation as what some of the probabilities for it are.”

Dr. Ford has well accomplished his task. He tells his story lucidly and succinctly, and is evidently master of his subject. Among other things he explains the causes which have thus far prevented co-operation from prospering. There is not, in truth, much to tell about that “industrial” co-operation which the Americans call “urban.” As among ourselves, industrial co-operation made an early start about the “thirties” with the same aims in view. But it did not live on or develop like our own. Now the existing laws stand rather in the way. However, foreign immigrants readily manage, notwithstanding, to establish their accustomed stores themselves. On agricultural ground there is plenty of “co-operation” and to spare, but it is self-seeking, speculative, in many cases exclusive. It is to be hoped that the forthcoming American inquiry into European methods will correct this, and place American agricultural co-operation on the proper footing. The present book may prove a good preparation for this.

HENRY W. WOLFF

Birmingham Studies in Social Economics and Adjacent Fields.

Edited by PROFESSOR W. J. ASHLEY. I.—*Environment and Efficiency: a Study in the Records of Industrial Schools and Orphanages.* By MARY HORNER THOMSON. II.—*The Public Feeding of Elementary School Children: a Review of the General Situation, and an Inquiry into Birmingham Experience.* By PHYLLIS D. WINDER. III.—*The Social Policy of Bismarck: a Critical Study, with a Comparison of German and English Insurance Legislation.* By ANNIE ASHLEY, M.A. (1912. Longmans, Green and Co. Price 2s. each.)

An editorial note states that “the studies in this series are the outcome of the inquiries of students working for the Social Study

Higher Diploma or for the Higher Degrees of the University of Birmingham." The Social Study course of the University of Birmingham is the "newest" enterprise of that "new" University, and deserves attention in itself before we look at its first fruits. A committee composed of teachers in the University and of representatives of the National Union of Women Workers, the Workers' Educational Association, the Trades' Council, and other institutions in the city, supervises a course of systematic instruction intended to provide for the needs of those desirous of serving on local governing bodies, of engaging as officials in national or municipal administration, or of taking part in philanthropic work, or as "welfare workers" at factories, as well as for the training in social questions of the clergy and the officials of trade unions, friendly societies, &c. The course covers one or two academic years, and embraces (a) university lectures in industrial history, local government, sanitation and hygiene, elementary economics, industrial legislation, and social philosophy; (b) visits of observation to institutions dealing with the administration of poor law, education, and justice, with sanitation and hygiene (hospitals, housing improvements, &c.), and with industrial conditions (factories, labour exchanges, &c.); (c) practical work—office work at the Birmingham Aid Society and the Birmingham C.O.S., visiting in connection with these two societies, and work as a helper in an approved school, club, class, &c. Exemption from certain parts of the practical work may be allowed to students already possessing such experience. A diploma is granted to those who satisfy the committee, and candidates who have fulfilled all the requirements of the ordinary diploma with a high degree of credit may be granted a Higher Diploma after a second year of study, in which they must take up two of the following University courses—advanced economics, public finance, methods of statistics, political philosophy, housing and town-planning. They must also submit a thesis embodying the results of an original investigation into economic or social conditions, conducted during the period of study under the direction of some member of the committee. Three of those theses are now before us.

It would be easy to suggest extensions of this scheme of social study, and even to propose improvements, but, taking it as a whole, and remembering that the practical work is only possible through the co-operation of officials and manufacturers who have their own daily business to attend to, it is most admirable. One would have much more confidence in the efficiency of municipal officials if one knew that they had all gone through some such

course of instruction in theory, history, and practice. Such instruction is just as necessary for the clerical or administrative staff as a knowledge of the principles of hygiene is for the sanitary inspector. Indeed, one might even go farther, and suggest that it would be extremely useful if Professor Ashley and other teachers engaged with the practical side of economics would draw up a similar course of training for civil servants. Administration becomes inconceivably more efficient when the administrator has a first-hand acquaintance with the material with which he has to deal as well as with his office-methods and precedents.

Whatever may be the results on administration, there is no doubt as to the effect which this carefully-planned course of instruction has on investigation. Each of these three theses is of a high order of merit, and shows that the writer has approached her subject with sympathy, has accumulated her facts with care, and has criticised them with a keen sense alike of their sufficiencies and their deficiencies. They are also well written, which, unfortunately, is much more than one can say for all post-graduate or, indeed, all professorial work. The arrangement is good, and the language is terse and clear. These same good qualities, however, make it difficult to summarise the reports.

Miss Thomson's object is to show the effect produced on children belonging to the lowest class of society when they are taken out of their surroundings and are properly fed and trained. Out of 265 cases investigated, 192 turned out satisfactorily, forty-four were doubtful, and only twenty-nine unsatisfactory, of which thirteen were "mental" cases or "almost deficient." Even in a batch of forty cases where the children were taken into institutions at the late age of eleven or twelve, twenty-eight were entirely satisfactory. The records cover, as a rule, at least four years after leaving the Home, and Miss Thomson's standard is so high that on p. 32 a girl who finished by being a matron is classed in the category of unsatisfactory cases. The conclusion is that environment is more potent than heredity in determining the fate of the slum child, contrary to the opinion of an egregious Mr. Mudge, who unconsciously travesties whatever is sound in eugenics and holds that "in social life the environment is the product of the individual." Miss Thomson's final words are: "So our race of hereditary paupers and criminals will form, as generation follows generation, an ever-increasing minority, until eventually—who knows?—they may be crowded out altogether by the mere force of a beneficent environment."

The Birmingham Education Committee gave Miss Winder

special facilities for her investigations, so that she is able to give abundant particulars as to the condition of the families where the children require to be fed at the public expense. The evils of casual labour are once more made evident; the benefit to the children from proper feeding is again displayed. Her most important practical conclusion is that the system of selecting children entirely by way of a fixed poverty scale is unsound, and that there should be the closest co-operation between the school medical service and the canteen committees. Her general view of the problem of school feeding is worthy of quotation: "The greatest danger, perhaps, of a public provision of free meals is that they act as a salve to the conscience of the community who see the children being fed, and, thinking all is well, look no further. The meals themselves are only a palliative; the real solution of the problem of the ill-nourished child can only come very slowly with more knowledge and better conditions in the homes, with proper provision for times of sickness and for widowhood, and with some solution of the problem of unemployment."

Miss Ashley first discusses the nature of State Socialism and its relations to Conservatism, and briefly sketches its history; then she reviews Bismarck's character, and traces the development of his opinions. In the second half of her thesis she deals with the early history of insurance in Germany and with the provisions and principles of the Bismarckian legislation, compares German and British insurance legislation, and discusses the relations of insurance and self-help and of State action and charity. This is a study of an entirely different kind from the other two, but it is at least as good. The historical summaries are both full and concise, the treatment of Bismarck's character is illuminating, the exposition of the insurance laws plain and lucid. Occasional flashes of humour light up the writing. The time is not yet for a final judgment of Bismarck and his policy, but, as Professor von Schmoller says in his preface, and Miss Ashley shows in more detail: "There was always in his heart a feeling of *noblesse oblige* towards the lower classes, and a conviction of the social mission of the monarchy to protect them against exploitation by the upper classes; and, beneath all this, was an undercurrent of dislike of the money-making *bourgeoisie*. . . . An important factor in determining the scope and character of the whole body of insurance legislation was Bismarck's desire to carry out the great undertaking rapidly, and, in any case, during his own lifetime."

HENRY W. MACROSTY

Geschichte des Sozialismus in England. By M. BEER. (Stuttgart : Dietz Nachfolger, G.M.b.H. 1913. Pp. xii + 512.)

WE do not know whether the author is acquainted with the advice of the late Professor Brewer that the best way to study history is to go to biography. There is a good deal of truth in the statement, even for general history, but in the case of the history of movements it is especially valuable. Herr Beer has adopted the advice in principle. His book shows clearly the influence of the great and the small leaders on the development of Socialism in England—men such as E. C. Jones, George Holyoake, Samuel Kydd, to name but three. The English pioneers of Socialism may not be placed by the side of Marx or Lassalle, but certain it is that in their own country they were not without honour or success. Particulars of their lives are scattered about here and there. Herr Beer has, we believe for the first time, gathered the material into a whole and worked it around one central theme—the history of Socialism in England.

Students owe a debt of gratitude to him for the work, seeing that there is no comprehensive treatise on this most interesting subject. Our only regret is that it should have been left to a German to supply the need. But this is no reflection on the author, who has done his work thoroughly and scientifically. The book is divided into three parts as follows : (1) from 1750 to 1824, (2) from 1825 to 1854, and (3) from 1855 to 1912. The story is told in a business-like, straightforward manner, without any attempt to put forward original or new-fangled ideas. Particularly good is the section dealing with the Chartist Movement. The author's standpoint—and this must not be left unmentioned—is confessedly Socialistic. (Is not the book printed by the well-known Stuttgart firm which specialises in the production of Socialist literature?) This is to the advantage of the work. If we are to have a presentation of the growth of the Socialist movement in England, it is best that it should come from a Socialist. But let us add that this does not mean that the story is one-sided, extremist or exaggerated. Herr Beer is, it is true, a Socialist (he was the London correspondent of the *Vorwärts* from 1901 to 1910) ; but he is also a scholar, and the book is worthy of the best traditions of German research. Herr Beer has gone to the sources, not neglecting the general literature of each particular epoch. His quotations, of which there are many, are, of course, in German.

The very straightforwardness of the book leaves little room for criticism. We have tested it throughout and have not met with

any glaring errors; on the contrary, the author shows an understanding of English conditions, both in the present and the past, which is commendable. When he says that the year of the disappearance of the yeoman was not, as Marx held, 1750, but 1825, we doubt whether it is at all possible to fix any year definitely, though we should be inclined to favour the earlier period, if some date must be chosen.

A serious thing in the book is the number of misprints. The author seems to be aware of them, but he has not seen them all (*e.g.*, p. 405). We hope they will all be removed in the English edition, which, we understand, the author has in preparation, and which is to be somewhat larger than the German.

M. EPSTEIN

Histoire du peuple anglais au XIX^e siècle. Vol. I., *L'Angleterre en 1815.* By ELIE HALÉVY. (Paris: Hachette. 1912. Pp. 615.)

PROFESSOR HALÉVY's book covers the whole range of social activities: politics, economics, religion, and the arts. Economic students will be mainly interested in Book II., *La société économique*. The book is more than a work of reference, but the small space, 174 pages in all, into which subjects so huge as agriculture, industry, transport, credit, taxation, and the Poor Law have to be fitted, makes it impossible for the author to add very much to our knowledge on any particular subject. As a general work, the English student will pronounce it useful, although, being a French publication, it contains no index. The reader already familiar with Prothero's *English Farming*, Mantoux's *Industrial Revolution*, and the historical writings of Tooke, Jevons, Andréades, Sidney Buxton, and the Webbs, will know in advance what the author has to say. But the book is a challenge to Englishmen to write for themselves their own economic history during the nineteenth century, and doubtless some have already the challenge in their pockets. There are some interesting pages (298-300) and some valuable references (299, note 1) on the subject of the licenses issued on either side of the Channel since the period of Napoleon's Continental system. To these one would now add the name of Professor Eugen Tarle, of Petersburg, although his work, being in Russian, is inaccessible to most of us except through the French medium of an International Historical Congress. For closeness of research Professor Halévy's book cannot claim to rival the chapters on economic history in the

later volumes of the Cambridge Modern History, chapters which form refreshing oases in that desert of crowded dullness.

C. R. FAY

The York Memorandum Book. Part I., 1376-1419. Edited by MAUD SELLERS, Litt.D. (Surtees Society. Vol. 120. 1912. Pp. lxxxvi+287.)

THE capital of the North has waited long for the publication of its early documents, and both economic and general historians will be most thankful to the Surtees Society and Miss Sellers for this first valuable instalment. The Memorandum Book, which "in form, matter, and date corresponds very closely with Letter Book H of the City of London," is essential for comparison with other mediæval records. The volume contains a number of documents both earlier and later than the period 1376-1419. It is particularly rich in gild regulations, for York was a city with a very highly developed gild life in the fourteenth and fifteenth centuries. Not that the gilds show any signs of independence of the town authorities: there are no civic gild revolutions; but gild organisation is applied even to the tiniest groups of craftsmen or traders. Whereas Norwich, a town of comparatively weak gild life, had only six regular organisations in 1389, sixteen in 1440, and twenty-six in 1448, the York records for about the same period show forty-one gilds, varying in size from the tailors' gild, with 128 masters, to the wax chandlers' with six and the founders' with five. The earliest ordinances here printed are those of the girdlers in 1307, which show a well-developed gild system with a four-year apprenticeship. A century later the seven-year period is practically universal. A fullers' ordinance of about 1390 suggests that the mastery was at that time open to competent men who had not been apprenticed: "Item que desormes chescun qad estee apprentice ou servant en le dit artefice et soit trove convenable a ocupier sicome mestre en mesme l'artifice," etc. (p. 72); but other interpretations are possible, and I have not noted any other ordinance which settles the point. A difficulty arises from the use of "servant" by the York scribes. Sometimes it applies to anyone who is not a master (*e.g.*, p. 89); in one case an English cross-heading to a Norman-French document equates it with apprentice; elsewhere it obviously applies to the wage-earning "journeyman," a term very rarely used at York.

The "servant," in the later fifteenth century, at any rate, is often hired by the week, and from an earlier date we find refer-

ences to "taskwork." The constant struggles to prevent men working for two masters, and to force them to work in their master's shop only (*e.g.*, skippers, p. 63, saddlers, p. 89: both sets of ordinances undated), show how difficult it was to maintain what are usually called "typical gild conditions," and how easily the hired man might become a home-worker if gild rules were relaxed. In the fifteenth century we get the skipper's "servand" "that wyrkys a penyworth work for a penny, and wyll noght be governed at the serchyng of hys work be the serchours and maisters," who is to be fined. He is surely either a home-worker or a short-hired man like those Norwich "servants" in the early fourteenth century Book of Customs, for whom "there masters are not answerable . . . for that they are not of their mainpast because they receive a penny a day for a penny of work."

There is no evidence of permanent journeymen's organisations, but the cordwainers, about 1435, complain that certain servants—inspired by aliens and other outsiders—"sine causa justa recusant gubernari per statuta et antiquam regulam artis predictae," and "faciunt conventicula et congregaciones illicitas et confederaciones prohibitas . . . in numero magno, contra magistros suos quibus servirent, contra bonum usum civitatis hujus, et in contemptu regis" (p. 191).

The documents contain abundant information on other points of special interest to the mediæval economic historian, but of less interest to the modern economist—such as the gradual dissolution of the merchant gild, the economic position of women in the mediæval town, "overlap" disputes among gilds, the admission of strange craftsmen to gild privileges, the policy of the city towards runaway villains and aliens, and the close connection between gild life and pageantry. The modern economist may not even care to know that the saucemakers and sellers of Paris candles were specially interested in that pageant "in qua representatur quod Judas Scarioth se suspendit et crepuit medius" (p. 155). The mediævalist, on the other hand, will note with interest that there was not at York that concentration of traders in Poultries, Milk Streets, and Ironmonger Lanes which one finds in so many greater mediæval cities. There were, in any case, few trades in York big enough to dominate a whole street.

Profound gratitude to the Editor is linked with a little regret at her insistence on dividing principal sentences by commas. "Certain boroughs, however, as early as the reign of Henry II., had obtained the right to treat freehold property in the same way

as personal, York was one of these, it became a matter of first importance that a good title should be secured," &c. There are many such sentences. The Index is not quite perfect, as it should be in a book of this kind. There are two mistakes in the five entries under "Clapham." But there is no reason to think that this is an average proportion of error, and one of the mistakes is only the still very common confusion of Claphams with Chapmen.

J. H. CLAPHAM

Weibliche Dienstboten und Dienstbotenhaltung in England. By DR. LISA ROSS. (Tübingen : J. C. B. Mohr. 1912. Pp. viii + 99. 3 marks.)

THIS little book describes the conditions of female domestic service in England, institutes a comparison with Germany in this respect, and draws some general inferences. It makes no claim to solve the servant problem, and very little attempt to forecast the future.

The writer examines the motives underlying the practice of keeping domestic servants, and finds four factors at work. The housewife may help her husband in breadwinning, and employ a servant to replace her in the home. Or she may delegate her household duties in order to devote her time to the education of her children, to social work, or merely to culture and recreation. Again, the mistress of a house may employ a servant, or a given number of servants, simply to conform to the standard adopted by her class. Lastly, she may keep any number of servants as a mere matter of luxury. Between the motives at work in the last two cases it is not easy to draw a definite line.

It is clear that the practice first mentioned is economically productive, and directly so. The second, in the majority of cases, is indirectly productive, and therefore economically sound. In the third class of cases we are dealing with conventions which it is difficult to criticise. The fourth must be unconditionally condemned. Where the energies of women are set free for no useful purpose, we can only get national waste.

Dr. Ross is of opinion that the second factor is the more predominant in Germany, while the third operates more strongly in England. She supports this view by the fact that technical improvements and labour-saving appliances in the home are immediately followed by a reduction in the number of servants in German households; while in England the correspondence

between the amount of work and servants employed is much less marked, showing that the practice is more a matter of custom than of need.

In England the proportion of servants kept has always been greater, their wages have always been higher, and their conditions better than on the Continent. The lowest wage, e.g., paid to cooks and parlourmaids in London is well above the average paid anywhere in the German Empire. In England, too, the domestic servant is a much more independent and detached individual than in Germany. Domestic service is, indeed, in a transition stage everywhere; it is losing its personal character, and tending at last towards the condition of free contract which exists in other occupations. England, which has been half a century ahead of the Continent in all matters affecting domestic service, is naturally in the van of this movement also.

The servant problem is doubtless not to be solved by the arm-chair economist. Still, it is a pity that the thoughtful analysis of the early chapters of this book was not followed up by a consideration of the future of domestic service on the basis of free contract—a development which is imminent. The writer has deliberately restricted her inquiry to household servants in direct personal relations with their employers, and therefore leaves out of consideration the whole body of hotel, club, and institution servants. These are, however, much more highly organised than the rest of their class, and have already achieved the impersonal relation to which all are tending. A little more consideration of their conditions would have repaid study, and might have indicated the lines on which a solution of the servant problem may be sought.

H. REINHERZ

Die allgemeine Nährpflicht als Lösung der sozialen Frage. By JOSEF POPPER-LYNKEUS. Dresden: Carl Reissner. 1912. Pp. xvi + 813.

THERE have been many suggestions put forward for the amelioration of the world and the improvement of social conditions. Louis Blanc's, Proudhon's, Henry George's, Richard Bellamy's, Franz Oppenheimer's, are a few that are well known to Economists; and now comes Josef Popper (Lynkeus) as the latest prophet of the golden age. He has weighed his precursors in the balance, and has found them wanting. Hence his own scheme, in which he appears to place exceeding great faith.

It would be idle to assert that his considerations are not without value or that his suggested scheme lacks interest. But it seems hardly necessary to have expatiated upon it at such great length. Surely one-fourth of the eight hundred odd pages would have amply sufficed. But the author is fond of a good fight; he has jousts with the sociologists, whom he just tolerates, and with the economists, whom he positively despises. In fact, he holds the view that economics is only a pseudo-science, and he devotes many pages to prove this thesis. Almost every German and Austrian economist of note is quoted and slashed about, and we are bound to confess that this part of the book is not uninteresting. The author, however, wishes his work to be looked upon not as a scientific piece of reasoning, but as a programme pure and simple.

It is an attractive programme. Herr Popper starts out with what is undoubtedly one of the most tragic facts of modern economic life—the uncertainty as to their livelihood by which the great mass of workers are weighed down. His axiom, therefore, is that every state should see to it that each of its subjects is assured a minimum of comfort, so as to be placed in a position of economic security, no matter what happens.

This minimum shall include food, housing, clothing, medical and nursing attendance, and also burial. To provide for these wants there shall be instituted an Industrial Army of men and women, parallel with the existing military forces, and recruited in the same manner as these are—by conscription. Every man and woman in the state will have to serve for a number of years in the Industrial Army, giving up a span of their life to the state, as the soldier in training does to-day.

Everything produced by the Industrial Army shall be divided *in kind* among all the citizens according to their needs. But how are these to be determined? Our author is a little vague on this point. Physiology, he says, makes it abundantly clear how much food, and of what kind, any person requires for perfect health. So much the state shall give him as his minimum. And as for housing, "we know from researches in hygiene of what size healthy dwellings should be, and how constructed."

But suppose that not sufficient is produced for the minimum of all? The author has two answers to this possibility. In the first place, if it should be necessary to suffer hunger, then all must suffer alike. In other words, the general minimum must be lessened by an equal amount in every case. He feels, however, that that is not the ideal way out of the difficulty. Hence

his second proposal: the state shall limit the number of births. The method of achieving this end is certainly original; readers will find it in the last chapter of the book.

Side by side with the work of the Industrial Army, private undertakings shall be allowed to exist, but they are to produce only luxuries, *i.e.*, that which is over and above the minimum standard. Here the present economic order shall continue, with competition, wages, strikes, lock-outs, and so forth. When you have served your time in the Industrial Army you may follow any calling you choose. Of course, seeing that every citizen will have provided for him the minimum of existence, wages will tend to be lower than they are now.

This, in brief, is the two grains of wheat hidden in the two bushels of chaff. The scheme seems an earnest attempt at a solution of the social question, and not a few people will agree with the author's fundamental principle. The difficulty will be concerning its realisation. Nevertheless, all social reformers should find the book interesting. The second part, which is constructive, will appeal most to them; while the first part, which is critical, will not be without use for professed economists.

M. EPSTEIN

NOTES AND MEMORANDA

THE DEPRECIATION OF BRITISH HOME INVESTMENTS.—II.

THE tables published in the ECONOMIC JOURNAL of June, 1912, are brought up to date below by the addition of the figures for 1912.

TABLE I.—(Line A of Diagram).

Dividends and Mean Prices. BRITISH RAILWAY DEBENTURE STOCKS.

—	1876	1881	1886	1891	1896	1901	1906	1911	1912
1. Caledonian	4'00 104'00	4'00 107'5	4'00 116'2	4'00 126'6	4'00 156'9	4'00 185'2	4'00 121'2	4'00 108'00	4'00 104'0
2. Great Eastern	4'00 102'5	4'00 112'2	4'00 117'0	4'00 127'5	4'00 154'2	4'00 181'0	4'00 119'1	4'00 106'2	4'00 102'4
3. Great Northern	4'00 105'2	4'00 114'7	4'00 120'5	4'00 100'5	4'00 119'1	4'00 100'0	4'00 92'0	4'00 81'6	4'00 78'8
4. Great Western	4'00 105'2	4'00 114'7	4'00 121'0	4'00 181'9	4'00 157'7	4'00 184'0	4'00 123'4	4'00 109'5	4'00 106'6
5. Lancashire and Yorkshire ...	4'00 105'2	4'00 114'7	4'00 118'0	4'00 128'0	4'00 119'7	4'00 100'5	4'00 91'8	4'00 81'2	4'00 78'8
6. London and North Western	4'00 105'7	4'00 115'0	4'00 121'7	4'00 132'7	4'00 119'9	4'00 105'2	4'00 95'8	4'00 84'2	4'00 80'9
7. London and South Western	4'00 106'7	4'00 115'5	4'00 120'0	4'00 100'2	4'00 119'9	4'00 101'8	4'00 93'0	4'00 81'9	4'00 79'1
8. London, Brighton and South Coast	4'50 114'0	4'50 124'0	4'50 130'5	4'50 143'0	4'50 173'7	4'50 147'4	4'50 133'0	4'50 120'2	4'50 116'0
(a) Manchester, Sheffield and Lincs	(a)4'50	(b)4'00	(b)4'00	(b)4'00	(b)4'00	(b)4'00	(b)4'00	(b)4'00	(c)4'50
9. (b) London, Tilbury, and Southend	113'0	107'5	116'0	123'0	154'1	130'5	117'0	106'1	113'0
(c) Great Central	4'00 102'7	4'00 107'9	4'00 114'7	4'00 124'6	4'00 116'4	4'00 100'0	4'00 91'0	4'00 80'6	4'00 78'3
10. North British	4'00 102'7	4'00 107'9	4'00 114'7	4'00 124'6	4'00 116'4	4'00 100'0	4'00 91'0	4'00 80'6	4'00 78'3
Average of the Ten	Dividend, per cent. 4'10 Price, " 106'32 Yield, " 3'17'1 Years' Purchase 25'9	4'05 113'37 3'11'8 28'0	4'05 119'56 3'7'9 29'5	3'85 123'80 3'2'2	3'55 139'16 2'11'0 32'8	3'55 118'36 3'0'0 32'8	3'55 107'73 3'5'7 30'3	3'55 95'95 3'14'0 26'8	3'60 93'74 3'16'8 26'0

The dividends are those paid during the year.

TABLE II.—(Line B of Diagram).

Dividends and Mean Prices. BRITISH MUNICIPAL SECURITIES.

	1896	1901	1906	1911	1912
1. Metropolitan Consolidated (1941) 8% Stock	121'75	101'37	93'75	89'25	87'56
2. Birmingham Corporation (1947) 8% Stock	114'00	100'87	94'37	86'44	83'50
3. Bristol Irredeemable 3½% Stock	132'75	114'25	104'60	97'75	94'25
4. Cardiff (1935) 3½% "	122'31	106'75	101'37	97'00	95'00
5. Glasgow Irredeemable 3½% "	135'25	118'75	107'37	102'12	100'00
6. Liverpool " 3½% "	136'75	117'75	108'12	100'50	98'87
7. Manchester " 4% "	151'12	132'06	123'56	114'69	111'75
8. Newcastle (1936) 3½% "	121'37	106'50	101'25	97'37	95'75
9. Nottingham Irredeemable 3% "	117'12	100'37	90'44	87'87	86'44
10. Bradford (1945) 3½% "	123'25	109'31	101'75	97'75	96'87
Average of the Ten	Dividend, 3'4% Price 127'567 Yield, per cent. 2'13'4 Years' Purchase 37'5	110'798 3'1'4 32'6	102'398 3'6'5 30'1	97'074 3'10'1 28'5	94'999 3'11'7 27'9

TABLE III.—(Line C of Diagram).

Dividends and Mean Prices. BRITISH RAILWAY ORDINARY STOCKS.

	1896.	1901.	1906.	1911.	1912.
1. Caledonian	5.25 154.56	3.62 124.40	4.00 110.60	3.37 85.75	3.25 78.62
2. Great Eastern	2.75 98.62	2.62 101.75	3.37 85.19	3.37 71.12	2.87 65.25
3. Great Western	5.87 173.25	4.00 140.06	5.37 133.19	6.00 126.31	5.37 118.31
4. Lancashire and Yorkshire ...	5.12 140.44	3.62 117.87	4.12 105.12	4.62 97.12	4.12 91.56
5. London and North Western ...	6.87 197.69	5.50 169.31	6.37 155.50	6.87 141.12	6.37 134.75
6. London and South Western ...	6.37 207.25	5.50 176.00	6.00 153.00	6.12 141.37	5.50 128.62
7. London, Brighton & South Coast	6.50 185.50	4.75 142.00	5.62 133.62	5.62 115.50	5.00 111.12
8. North Eastern "Consols" ...	6.12 173.56	5.75 160.25	5.75 140.94	6.25 130.37	5.75 123.34
9. North Staffordshire	4.25 130.25	3.62 107.75	4.25 101.19	4.75 94.44	4.37 89.25
10. Taff Vale	3.25 86.50	2.87 71.50	3.37 79.62	4.00 76.00	3.50 73.25
Average of the Ten { Dividend, per cent. ...	5.235	4.185	4.872	5.097	4.610
{ Price " ...	154.762	131.089	119.797	107.910	101.407
{ Yield " ...	3.7.8	3.3.10	4.1.4	4.14.6	4.10.11
{ Years' Purchase ...	29.6	31.3	24.6	21.2	22.0

The dividends are those paid during the year.

TABLE IV.—(Line D of Diagram).

Dividends and Mean Prices. FOREIGN AND COLONIAL RAILWAY OBLIGATIONS.

	1896.	1901.	1906.	1911.	1912.
1. Northern of France 3% Obligations	95.0	91.1	91.1	84.1	83.4
2. Grand Russian (Nicolai) 4% Bonds	99.0	97.1	76.5	89.1	85.5
3. Pennsylvania 4½% Gold Bonds	113.0	111.6	104.8	104.1	102.7
4. Chic. Mil. and St. Paul 4% Gen. Mort. Bds.	95.2	115.0	111.9	104.1	101.6
5. Buenos Ayres Gt. Southn. 4% Deb. Stock	119.5	111.0	106.2	102.2	101.0
6. Central Argentine 4% Deb. Stock	110.1	102.9	105.5	101.4	100.3
7. Mexican Railway 6% Perp. Deb. Stock	131.1	132.7	144.0	139.6	137.9
8. Nitrate Railways 5% 1st Mort. Bds.	88.6	97.7	105.2	105.2	106.0
9. Canadian Pacific 4% Con. Deb. Stock	105.2	110.1	110.9	104.4	102.2
10. Atlantic and St. Lawrence 6% Shares	152.5	160.5	157.7	150.1	146.1
Average of the Ten { Dividend, 4.45%. Price	110.92	112.27	111.88	108.43	106.67
{ Yield, per cent. ...	4.0.3	3.18.9	3.19.11	4.2.1	4.3.5
{ Years' Purchase ...	24.9	25.4	25.0	24.4	24.0

TABLE V.—(Line E of Diagram).

*Dividends and Mean Prices. FOREIGN AND COLONIAL RAILWAY
ORDINARY STOCKS AND SHARES.*

	1896.	1901.	1906.	1911.	1912.
1. Canadian Pacific ... {	2·00	5·00	6·50	10·00	10·00
	58·06	104·50	184·94	227·69	258·62
2. Chicago, Milwaukee and St. Paul ... {	4·00	6·00	7·00	7·00	6·00
	72·37	171·81	178·50	122·94	111·00
3. Illinois Central... {	5·00	6·00	7·00	7·00	7·00
	93·69	143·81	179·81	143·44	134·62
4. New York, Cent. and Hudson's River ... {	4·00	5·00	5·25	5·00	5·00
	96·06	160·50	145·12	111·50	116·81
5. Pennsylvania ... {	5·00	6·00	6·50	6·00	6·00
	116·12	154·25	139·12	128·37	126·75
6. Buenos Ayres Great Southern ... {	5·50	7·00	7·00	7·00	7·00
	130·12	187·75	133·69	121·37	125·25
7. Buenos Ayres Western {	6·00	6·00	7·00	7·50	7·00
	120·62	104·69	131·12	128·37	127·19
8. Central Argentine .. {	2·50	3·75	6·00	6·00	6·00
	64·25	65·87	115·87	107·44	107·31
(a) Rio Claro San Paulo ... {	14·00	14·00	14·00	13·50 ¹	6·00
9. (b) Great Western of Brazil ... {	(a) 231·87	(a) 214·68	(a) 262·50	(a) 257·50	(b) 105·81
	14·00	10·00	12·00	13·00	13·00
10. San Paulo (Brazilian) {	195·62	151·50	207·19	209·56	234·50
Average of { Dividend, per cent.	6·200	6·875	7·825	8·200	7·200
the { Price	117·878	143·886	167·786	155·818	144·736
Ten { Yield	5·5·2	4·15·6	4·13·3	5·5·3	4·19·6
Years' Purchase	19·0	20·9	21·4	19·0	20·1

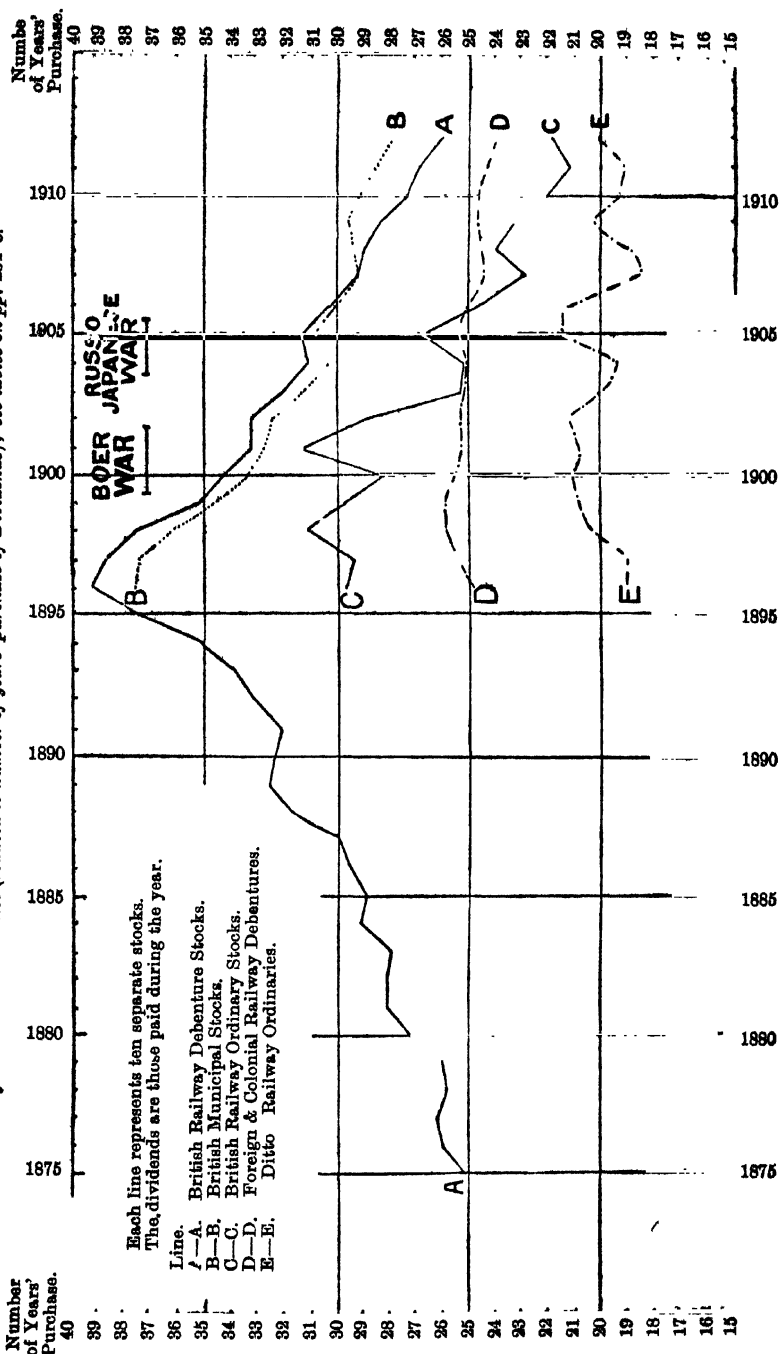
The dividends are those paid in the year.

A slight error in the 1911 figures in Table V. has been corrected. The diagram which appeared a year ago is brought up to date on p. 287.

The added figures in no way alter the effect of those which precede them. British Railway Debenture stocks and British Municipal stocks have continued their decline, and there is still no sign of any change for the better. British Railway ordinary stocks have likewise continued to fall in price, though, through strikes having reduced dividends in a higher ratio, "years' purchase of dividends" in their case shows an increase. Foreign and colonial railway debentures have declined, but to a smaller extent than the corresponding British stocks; while the rise in "years' purchase of dividends" observable in foreign and colonial railway ordinaries is due more to rise in price than to fall in dividend. Thus the problem remains a double one—we have not only to deal with a movement adverse to British home investments, but with one in which foreign and colonial investments share, if at all, only to a less extent.

SOME BRITISH HOME INVESTMENTS COMPARED WITH SOME SIMILAR FOREIGN AND COLONIAL INVESTMENTS.

Average Mean Annual Prices (reduced to number of years' purchase of Dividends); see tables on pp. 284-6.



The effect of "redemption" upon the averages shown in the tables, and therefore upon the lines in the diagram, has been carefully looked into. Some of the investments in Tables II. and IV.—British Municipal securities, and foreign and colonial railway obligations—are either in process of redemption or liable to be redeemed at future dates. A comparison of the prices of these with the prices of the others in the same groups shows that the effect of redemption is not, in any case, great, and as it operates in both directions—in some cases raising, and in others depressing, prices—the net effect upon the averages, and therefore upon the lines in the diagram, is negligible. So also as regards the matter of "rights" to new issues (to which reference was made on page 224 of the former article), an examination of the effect of not taking account of them in the tables has been made, with the result that it is clear that to include them would be extremely difficult, and that, even if it could be satisfactorily accomplished, it would merely widen to some extent the space in the diagram between the lines C-C and E-E. No alteration of the diagram, therefore, is called for on account of either "redemption" or "rights," and its lessons remain unimpaired.

Professor Cohn, in the *ECONOMIC JOURNAL* of December last, mentions the previous article generally with approval. He finds it "very justly maintaining" that the price movements of our home investments cannot be attributed to the fortunes of our political parties; "on the right track" when it says that the Colonial Stock Act is not the cause of the depreciation, and when it draws attention to the flow of British capital to other countries; and of the movements themselves he says, "these movements in the various kinds of investments are accurately illustrated by means of instructive tables." But he complains that the parallel which he sees between the movements of British Government securities and those of the securities of foreign states has not been noticed by the writer.

Professor Cohn finds "the pith of the matter" in the "identity" of the fate of German, French, and English State securities. The writer, on the other hand, finds it in the "exceptional" fate of British home investments when compared with similar foreign and colonial investments. Which field offers the better chance of finding "the pith of the matter"—the "State" or the "other" investment market—is no doubt open to discussion. Admitting the great importance of the market for State securities, is it not at least possible that the other markets, with their superior facilities for grouping, and their comparative remoteness from political

influences, afford the better field of study as regards the past? And when the survey is extended "to the future and to the coming movements in prices," are we not likely to get the better guidance from markets which possess these advantages? It is from considerations of this kind that the writer has been led to leave the "State" market to others.

Professor Rist, in the *Revue Economique Internationale* of March last, expresses surprise that the previous article regarded the depreciation of British home investments as exceptional, but he entirely ignores the evidence cited in support of that statement. The tables and the diagram require more consideration than he seems to have given them. How does he explain, for instance, the enormous difference between the two lines *C-C* and *E-E* in the diagram? His article goes a long way to prove that France has been very prosperous during the past fifteen years, and that as a consequence French investors have been attracted by her industrial and commercial issues. It is good that France has prospered, but it does not follow that Great Britain has been equally fortunate. There is, indeed, as will appear later, grave reason to fear that she has not.

Other writers—notably Professor R. A. Lehfeldt, and M. Paul Leroy-Beaulieu, the former in the Royal Statistical Society's Journal, and the latter in *L'Economiste Français* (of January last)—have been dealing in different ways with the subject of falling prices in the investment markets, and their writings are of much interest. But they have not said anything which seems in the slightest degree to shake the evidence of the tables given above.

The conclusion reached, on other evidence, in the previous article—that "the exceptional decline in the value of British home investments synchronises with, and may be very largely due to, exceptional competition, first in the iron trade and afterwards in other manufacturing trades of this country"—may seem falsified by the many reports of general prosperity during 1912, but signs are not wanting that, so far as the trades referred to are concerned, the prosperity is apparent rather than real. No figures—official or otherwise—are available whereby industrial profits can be accurately measured; but now and then light is shed on the subject, and on October 5th last two speeches were reported from which something may be learned. Mr. W. Peter Rylands, at the ordinary general meeting of the Pearson and Knowles Coal and Iron Company, Ltd., is reported as saying

that "during the last few years he could not call to mind one single new company carrying on a similar business being started in the iron and steel trade. He had known plenty of companies go down, crushed, doubtless, by the burdens which had to be borne by the industry. Two or three companies had closed down during the last few months, tired of struggling, and had gone into voluntary liquidation. No new company could start with any hope of success under existing conditions. . . ." This points unmistakably to a loss of capital and resources which, in any general estimate of national prosperity, must be written off against the profit made by similar concerns elsewhere. The other speech was by Lord Aberconway at the annual meeting of the Sheepbridge Coal and Iron Company, Ltd., who gave figures which showed that the pig iron output of that company had about doubled during the past twenty years. The capital had, he said, remained "practically the same" during that period, and the dividend had "kept up." If this condition of things applies to our coal and iron trades generally, it would seem that those of our mining companies which remain at work are exhausting their resources, and therefore what remain of the mineral resources of the country, twice as fast as they were twenty years ago, without improving their profits in doing so. Regarded in the light thrown upon them by these two speeches, the Board of Trade figures, whether we take them from "Iron and Steel, 1911" or from other returns, are certainly not calculated to inspire one with confidence in the strength of our manufacturing position, based as it is so largely upon our mineral resources. A glance at the figures given us by the Director of the Census of Production shows how completely, if we omit trades occupied in housing, clothing, and feeding the people, our industries are built upon our coal and iron. How far we can find profitable employment for our people if our iron mines fail us is problematical. We are, it is said, more and more devoting ourselves to high-class manufactures, and so long as that field is open to us we can, no doubt, provide good careers for those who qualify themselves for such work, even if we are compelled to import pig-iron. But meantime the continued drift of both capital and labour to the colonies and to foreign countries indicates that emigration presents to both the expectation of a higher reward than is obtainable by remaining at home—in other words, that competition is so severe in this country that both capital and labour are running away from it.

A STOCKBROKER

AMERICAN AGRICULTURAL COMMISSION.

It has been announced in the Press that an inquiry is about to be made on the Continent, and in the United Kingdom, into the organisation of agriculture by a large American Commission, including among its members delegates from most of the States of the Union and from one or more of the Provinces in the Dominion. They will arrive about July 8th in London, and sail from Queenstown on the 18th. The origin, scope, and purpose of the inquiry are set out in a Senate paper (Document No. 1071) ordered to be printed on February 11, 1913. But even those who have seen this Document, if they are not familiar with the sequence of events which led up to the appointment of the Commission may, I think, be assisted in understanding the real meaning of the inquiry by the supplementary information which I now offer to readers of THE ECONOMIC JOURNAL.

For the inception of the project it is not necessary to look far back. Towards the end of Mr. Roosevelt's administration a wave of new thought upon the social condition and economic needs of the farming population swept over the United States. Its growth was stimulated by the Conservation movement, the aim of which was to call public attention to the reckless waste of the natural resources of the country by exploiting capitalists, and to promote legislation to restrain it. In the course of the discussion it was frequently pointed out that by far the greatest national waste was to be found in the depletion of the fertility of the soil. Already the effect of bad husbandry was seen in the declining exports of agricultural produce. In the next few years, unless some radical change takes place, the United States will have to import some of its staple foods. The rising cost of living—the most vital question of the day in that country—is attributed by many to a faulty agricultural economy, the chief defect of which is the total lack of business organisation amongst those engaged in producing the nation's food. This disadvantage, under which these workers labour, is accentuated by the high degree of perfection attained in the organisation of other American industries, since in their mutual transactions organised interests prey upon the unorganised. Upon an unsound economic foundation no prosperous social life can be built up.

Whatever may be thought of such generalisations, it cannot be denied that, despite its unique physical opportunities, American agriculture, both as a social and as an economic force, is unnaturally and unnecessarily depressed. The thinkers of the towns are

becoming more and more alive to their ultimate dependence upon the welfare of the farmers, and for the first time since the industrial revolution public opinion is beginning to give to agriculture its proper place in the national economy. This is, I think, a substantially accurate description of the state of facts which was held to need the serious attention of thoughtful men in the United States.

The first serious attempt to initiate a scheme of rural betterment was the appointment in 1908 of the Country Life Commission. This body held sittings, to which all and sundry were invited to come and give evidence as to local agricultural conditions, in almost every State in the Union. They published a report which did not immediately lead to action, but set people thinking. The daily Press and the popular magazines took up the "back-to-the-land" cry. The Federal Department of Agriculture, the universities and agricultural colleges, the churches and many other agencies of social progress, agitated questions of rural economy with increasing activity.

In April of last year an important and representative convention was held at Nashville, Tennessee, under the auspices of the Southern Commercial Congress—an Association of public men drawn from sixteen of the Southern States. Persuaded, I think it may be said, by the eloquent advocacy of Mr. David Lubin, the United States delegate to the International Institute of Agriculture in Rome, those present came to the conclusion that a reform in agricultural credit would practically solve all the serious difficulties which beset the farmer. The resolutions adopted at this convention called for the appointment of the Commission, for which the United States Senate subsequently bespoke diplomatic courtesies abroad.

The movement grew in popular favour. Each of the three parties in the presidential campaign included agricultural credit as a prominent part of their constructive policies. On December 7th, President Taft convened a meeting of Governors at the White House to discuss the project, at which it was decided to commend it to all the States. The appointment of delegates thereupon commenced, and the Southern Commercial Congress set about making the arrangements for the European tour.

Meanwhile economic thought, aroused by a state of facts above indicated, progressed rapidly, and a mere inquiry into agricultural credit no longer satisfied those who had adopted the new conception of the proper place for the country's basic industry. Moreover, the popularity of the project was being threatened by

doubts, expressed in many quarters, as to whether agricultural credit—a highly technical subject on which there is abundant and excellent literature—was one which could be hopefully investigated by such a body as was proposed in a summer tour. It was therefore decided by the Southern Commercial Congress to instruct the Commission, instead of treating agricultural credit as the dominant, if not the only, factor in the development of rural life, to inquire into and report upon the entire organisation of the farmers' business in the countries to be visited. This change of procedure was approved by Mr. Taft, the then President, and was strongly endorsed by President Wilson and ex-President Roosevelt.

Readers of THE ECONOMIC JOURNAL will be chiefly interested in the concluding ten days of the European tour, which will be spent in the United Kingdom. Had the inquiry been, as originally projected, restricted to agricultural credit, little would have been learned in these islands. Indeed, there is only one issue within the scope of their inquiry, broadened, as has been explained above, upon which the Commission is likely to obtain valuable assistance. On this issue a few words may be usefully added.

By the time they arrive in England, the Commission will have learned the essential difference between the agricultural economy of the Continent, on the one hand, and that of the United States and other English-speaking countries on the other. It lies in the organisation of the farmers' business. In the former countries farmers have learned that methods of combination can be applied to agriculture as to all other important industries, provided the co-operative is substituted for the Joint Stock system of organisation. That lesson has been gradually learned by some of the farmers of the United Kingdom, first in Ireland, then in England, and later still in Scotland; it will also have to be learned in the United States. It is highly probable that the chief subject of inquiry over here will be the methods by which the English, Scottish, and Irish organisation societies are endeavouring to develop agricultural co-operation among the farmers of these islands.

HORACE PLUNKETT

THE GENERAL STRIKE IN BELGIUM.

THE general strike which took place in Belgium from April 14th to 25th, 1913, was entirely political in character. It arose out of the feelings of exasperation which animated the Liberal and Socialist Opposition, after the elections of June 2nd, 1912, had resulted in a triumph for the Catholic Government so overwhelming as to surprise even the victors. The *mot d'ordre* of a "general strike for universal suffrage" went forth from the Socialists of Hainaut; and an Extraordinary Congress of the Labour party, which was held on June 30th, 1912, accepted the idea with enthusiasm, entrusting the arrangements for its execution, including the choice of a suitable date, to a National Committee.

As soon as the Parliamentary Session had opened in November, notice was given by the Socialist deputies of a motion for the amendment of the Constitution, by which universal adult suffrage should be substituted for the system of plural voting actually in force. The motion was not debated until January. The Government was able to command a majority sufficient to carry the adjournment of the whole question, and even refused to appoint a Commission of Inquiry, as proposed by Monsieur Hymans, the leader of the Liberal Opposition. Not till then did the National Committee decree a strike, to begin on April 14th, 1913. The Mayors of the principal provincial towns thereupon undertook to mediate between the Prime Minister and the leaders of the Labour party. They expressed belief that the Government would be willing to appoint the desired Commission, if the threat of a strike was withdrawn. Accordingly, the Strike Committee resolved on May 8th to abandon the strike. The Prime Minister, however, did not consent to extend the scope of the proposed Commission to the Parliamentary franchise, and announced his intention of confining it to the amendment of the municipal and provincial franchise. Discontent broke out with renewed force in Socialist circles, and in spite of the opposition of accredited leaders such as MM. Vandervelde and C. Huysmans, the Congress held on March 24th resolved, by a large majority, on a strike to begin on April 14th.

I have called attention to these preliminary delays in order to show that although the strike had long been agreed upon, the preparations were hampered by successive periods of uncertainty. The only resources available were the workmen's individual savings and the subscriptions of a few middle-class sympathisers.

It is a matter of common knowledge that the Belgian *Syndicats ouvrier*s have no reserves at all comparable to the funds of English Trade Unions; moreover, for fear of exhausting their fighting forces for a long time to come, it had been decided that the ordinary funds should not contribute to the expenses of the strike.

The period of time immediately preceding the stoppage of work is particularly interesting from the point of view of social psychology. An intense and widespread uneasiness made itself felt throughout a great portion of the population, especially in the large towns and industrial districts. Catastrophes, violence, and terrorism were predicted by some; others were sure that the strike would be a miserable failure; all, whether openly or secretly, took elaborate precautions. There was not a middle class housewife but laid in a stock of coal and provisions, and many supplied themselves out of all proportion to the danger. In fact, there was a very extraordinary panic before the event. Manufacturers, too, tried to guard against the consequences of the strike by such arrangements as were necessary to meet a temporary stoppage, and by precautionary measures for the protection of their goods and premises. It was these precautions which, to a certain extent, averted the disasters which a sudden, unforeseen stoppage could not have failed to bring about.

We may venture on the assertion that the strike attained the maximum proportions anticipated by anyone acquainted with industrial conditions. No official statistics were published, and none need be expected. The "Ministère de l'Industrie et du Travail," which keeps a careful record of the numbers concerned in stoppages, and of all the incidents of ordinary strikes, decided to leave out of account a strike whose aim was purely political. We must therefore fall back on the statistics published by the two parties, which cannot, from the nature of the case, be accepted as impartial. Taking the most trustworthy calculations, the total number of strikers at the outset was nearly 300,000, and the maximum of nearly 400,000 was reached on April 19th.

As the total working population of the country is estimated at over a million, those who expected a *universal* stoppage could fairly declare that the strike had failed. But it is clear that neither the small independent workers, nor those engaged in home industries or in agriculture, can have contributed any appreciable contingent to the body of strikers. Nor, with the exception of the port of Antwerp, were the transport industries much affected; there was no stoppage of the State railways, nor interruption in the tramway services; and the public gas and electric works

scarcely suffered. On the other hand, all the great manufactures were paralysed. If we estimate that these absorb 700,000 work-people, the strike certainly withdrew one half of them. The stoppage was practically universal in all the collieries in the districts of Liège, Charleroi, in the midland districts and in the Borinage. The great metallurgic factories were reduced to complete inactivity or to the most trifling output. Even working-class groups, which were not officially connected with the Labour party, and which do not always obey the word of command, such as the glass workers of Hainaut, and the woollen unions of Verviers, threw in their lot with the strikers. The Brussels compositors, after refusing to stop work, were drawn into the movement after the second week—though the only large daily paper which was prevented from going to press was the *Peuple*, the organ of the Labour party.

Although, therefore, the economic life of the country was not brought to a standstill, and although the immediate needs of the nation were supplied, yet large-scale production was completely arrested. The industrial centres of Liège and Charleroi offered an impressive spectacle—smokeless chimneys, noiseless workshops; the Black Country had become green and clear, but over it brooded the silence of death. The port of Antwerp, with only half its usual consignments and gangs of casual lightermen, seemed an organism whose life was ebbing from it. All retail trade, and, oddly enough, the life of the streets, the traffic of the restaurants and cafés, the patronage of the picture theatres, were visibly diminished.

The records of the number of railway carriages in use on State railways, which are published weekly, afford a remarkable testimony to the state of affairs:—

<i>Week.</i>			<i>No. of carriages employed in transport of</i>	
			<i>Coal and Coke.</i>	<i>Other Goods.</i>
April 14—20, 1912	...	...	27,694	87,613
April 13—19, 1913	...	...	7,200	70,402
Decrease	...	...	20,494	17,211
April 21—28, 1912	...	...	26,280	88,914
April 20—27, 1913	...	...	9,145	70,550
Decrease	...	...	17,085	18,364
Total decrease in the fortnight	...	...	73,154	

It would be interesting to know what decrease took place in the number of workmen's weekly passes; but this, unfortunately, the Ministry refuses to divulge.

It would be premature to attempt any estimate of the direct losses suffered by the working classes and by trade. The figures of Fr.10,000,000 to Fr.12,000,000, lost in wages during the first week, would appear to be a moderate estimate. The indirect losses are incalculable; retail trade has been suffering for two or three months, and export trade has received a serious blow, the effects of which have yet to make themselves felt.

The political consequences of the strike have been considerable. From April 16th, when Parliament reassembled, the strike completely monopolised its attention. It was hotly and continuously discussed. And the Prime Minister, reverting to a previous declaration, eventually admitted, in the course of the debate, that the Commission which would be appointed to discuss the amendment of the municipal and provincial franchises, might also occupy itself by "talking" of the parliamentary franchise. The point was skilfully taken up by the Opposition, and the declaration was considered satisfactory by the Socialists. It was made the subject of an order-of-the-day, which, while condemning the general strike, nevertheless aroused a hope that the desired amendment of the constitution was in sight. A Socialist Congress, summoned as a matter of urgency on April 23rd, decided on the resumption of work, which took complete effect on the 28th.

There can be no doubt that the Labour party emerges from this experience with enhanced reputation. It has given evidence of a remarkable control over the working population, and ability to enforce discipline and exact considerable sacrifices for the sake of political reform. It has given proof of conspicuous organising power, and has gained much prestige from the fact that the strike remained everywhere from first to last completely peaceable, in spite of the fact that the entire country was covered with troops. Monsieur Vandervelde was justified in the statement that the strike had surpassed all the hopes that had been entertained.

The impartial observer, however, cannot fail to think with apprehension of the future. It is clear that the temptation to repeat this kind of experiment will henceforth be very strong; and we may well ask with anxiety what irreparable misfortunes such events might not bring in their train, if they were frequently repeated.

E. MAHAIM,
*Correspondent of the Royal Economic
Society for Belgium.*

Liège, May, 1913.

THE RAILWAY AND CANAL TRAFFIC ACT, 1913.

AFTER a delay extending to almost two years, this Act, which is intended to redeem the promise made by the Government to the railway companies at the time of the Railway Strike, has been passed. For a number of years the railways have suffered from steadily rising costs of working, and owing to the conditions laid down in the Railway and Canal Act, 1894, they have not been free to advance rates to meet the growing costs. The railways have gradually become less and less profitable, and have found an ever-growing difficulty in raising the capital necessary to an expanding business on terms which would make its employment profitable. Improved methods of working have done something to relieve the situation, but the demands of labour have kept pace with such improved methods, and even threatened to absorb more than the whole gain.

It was evident that some modification of the Act of 1894 was necessary. That Act, compelling the railways to justify any increased rate by proving that the amount of the increase was reasonable, has been interpreted by the Railway and Canal Commissioners in a narrow way. Practically the only proof accepted has been evidence of increased costs of working the particular traffic. Except in the case of a commodity like coal, which is worked in train-loads, the requirement is almost impossible to fulfil. The result has been that rates have become stagnant. The railways will not, or rather dare not, lower them, unless the results from so doing are practically known.

To some extent the new Act should relieve the position. For the future, in so far as increased expenses are due to improvements in the conditions of employment of their servants, it will only be necessary for the railways to show that the advances in rates are to meet such expenses, and in the total are not more than reasonably sufficient for the purpose. At the present time wages account for about 45 per cent. of the railways' annual expenses. So, if rates can rise and fall with wages, there will be far less reason for the railways to hesitate about lowering rates experimentally. To some extent the Act should restore the elasticity to rates, which they have lost since 1894.

Whether it will do so or not depends largely on the interpretation that the Railway and Canal Commissioners put on two conditions in the Act. Clause 1 (*d*) lays down that the proportion of the increase allocated to the particular traffic must not be unreasonable. What proof that it is not so the Commissioners will require

it is impossible to say at present. Then the Commissioners are authorised to take into account "*any circumstances*" that are relevant to the determination whether an increase of rates or charges is or is not greater than is reasonably required. This is understood to mean that economies due to improvements in methods of working or in appliances may be taken into account. Thus the rates of locomotive men's wages have advanced about 15 per cent. during the past ten years, but owing to larger engines the total expenditure on locomotive men's wages has not increased as fast as the growth of traffic. It is conceivable that the Commissioners might decide that this was a circumstance which they might take into account to the extent of ruling locomotive wages off the bill. If that were done, then it would be very like putting a premium on bad working.

A very great deal turns on the way in which the Commissioners settle the questions raised by these two clauses. Given a broad commercial interpretation, the Act may do much to restore elasticity to rates, and if it does this it will be good for both the railways and trade. Given a narrow interpretation on the lines of that given to the Act of 1894, then this Act will do little to improve the position. It will not be long before the position is known with certainty. The railways have given official notice of their intention to increase rates for merchandise by $\frac{1}{4}$ per cent. from the 1st July. There are clear indications that in many cases the increases will be resisted, and doubtless the Commissioners will be called on to decide between the contending parties.

W. TETLEY STEPHENSON

A REPLY TO MR. ACWORTH'S REVIEW OF PROFESSOR
C. L. RAPER'S "RAILWAY TRANSPORTATION."

MAY I make a reply to Mr. Acworth's review (ECONOMIC JOURNAL, December, 1912) of my book, "Railway Transportation: A History of its Economics and of its Relation to the State"?

The plan and scope of a book should always be, I think, in view when its merits or defects are judged. It was thought best to make my volume a very small one—of only about 300 pages—though it must cover a wide scope. This meant that it could not be exhaustive, and that each statement must include the maximum of fact and interpretation. Such a book must contain some inaccuracies and some statements too concise to be entirely clear when read by themselves. These limitations Mr. Acworth

has not, I think, taken into consideration. His criticisms are, therefore, too severe, as I hope to show.

He says that my statement (p. 22) "that there was really no effective competition between the parallel lines of railway" (British, 1872) is inaccurate. Let me quote the entire sentence from which the above is taken: "This committee (of 1872) found . . . that practically no competition in railway rates existed, that there was really no effective competition between the parallel lines of railway, only between the railway and ocean water transportation." The clause which Mr. Acworth quotes should be judged in its setting—not as a separate sentence. If there was no competition between the railways in their rates, that of their facilities could not mean much to the shippers. The Joint Committee (of 1872) made these two statements: "United systems now exist, constituting by their magnitude and by their exclusive possession of whole districts, monopolies . . ." and "There can be little doubt that effective competition does exist between places between which there is transit by sea." The Committee certainly left the impression that the railways were largely monopolistic, and that there could be doubt about the existence of any "effective" competition between them.

Mr. Acworth is entirely correct in one criticism—that of the coal tonnage (British) in 1852 and 1882 (p. 27). The stenographer who made a typewritten copy of my manuscript left out, by mistake, this phrase: "from the Midlands and the north of England to London." I examined the copy with the utmost care, but this error was not detected. The sentence should read, and will be made to read: "The canals of England and Wales carried, from the Midlands and the north of England to London, 33,000 tons of coal in 1852, only 7,900 in 1882, while for the same period the coal tonnage of the railways increased from 317,000 to 6,546,000."

Mr. Acworth thinks my statement (p. 29) that the "Briton, in our year of comparison (1900) travelled on an average about 245 miles" is incorrect. He estimates it at about 370. The British facts are so meagrely published, that neither of us can have a strong case of inaccuracy against the other; we both can only make estimates. I find that "Passenger Traffic and Rates"—an excellent work by W. E. Weyl—gives (pp. 88-9) the figure at about 245.

Just what the exact average of actual passenger rates in Great Britain has been since 1897, I do not know. I state (p. 34—Mr. Acworth says p. 24) that it has been perhaps as small as 1.75 to

2 cents. Mr. Acworth thinks it has been between 1 and 1·2 cents. Here again absolute accuracy is impossible; one can only make estimates. If Mr. Acworth's figures are correct, a large part of all the travel has gone at a rate far below 1 cent, which I doubt. The four sets of fares from which he makes his average are not, I think, typical of the whole British service. If the British average (of only three classes) has been between 1 and 1·2 cents, it has been almost as small as that of the Prussian State railways (with four or five classes), which was 1·01 cents in 1900 and '89 in 1909; and the Prussian rates have been notable for their smallness. From 5 to 9 per cent. of all the British travel has gone first and second class, with standard rates at about 4 and 2·5 cents, with an average of actual rates as high as 2 cents, and higher. From 91 to 95 per cent. has gone at a standard rate of 2 cents—at an actual rate considerably smaller. Let us suppose that one-half of the travel has been at, say, 2 cents, then the other half has paid no fare if the average of actual rates of all the travel has been only 1 cent; and it has paid only '4 cent if the average of actual rates of all the travel has been only 1·2 cents. Now the fact seems clear that a very considerable part of the travel has paid the standard rates, and that the remainder has paid rates less than the standard by from about 20 to 50 per cent.

On p. 39 is this statement: "In the new classification and maxima (1891-2), a number of commodities were not specifically mentioned; and upon these the railways at once advanced their rates over the old ones, some of which had not been changed for many years." Mr. Acworth thinks that I entirely misunderstand what happened, and that I give the impression that the railways acted illegally in increasing some of their rates. What is there in the above statement and in the whole paragraph from which it is taken to suggest that I accuse the railways of illegal action? Most certainly they had the legal right to advance their rates, by any method, to the new maxima. Their method was in this case to delay to reissue the old special commodity rates for 2-ton or 4-ton lots. I am inaccurate in saying that "a number of commodities were not specifically mentioned"; the railways now charged certain commodities, which had been shipped at special commodity rates, the maximum class rates.

Mr. Acworth cites two instances of inconsistencies: "The new maxima (1891-2) established standards for all class rates, beyond which any rate would be *prima facie* unreasonable and illegal" . . . and "The maxima were an absolute limit, beyond which

rates could not legally go" (p. 57). Are these statements, made in different places, really inconsistent? I find that jurists assign three meanings to the phrase *prima facie*; one is that of practical equivalence to *ipso facto*. I make such a use of the phrase, and I find such a use made by the Railway and Canal Commission. Again, are the following statements really inconsistent?—"It will be seen from the above table of maxima (this part of the sentence Mr. Acworth leaves out), that the actual rates are not much less." . . . and "Much of the British freight moves, not at the standard rates, but at special commodity rates, which are materially lower than the class charges" (pp. 42-3). The first statement is made, as the context shows, in connection with maximum class (standard) rates, and does not at all refer to commodity rates (reduced rates granted upon the condition of larger shipments than the piece shipments). The second statement refers, as the context shows, exclusively to special (commodity) rates for larger lots, and to these shipments the maximum class rates really do not apply.

Mr. Acworth thinks that I am not trustworthy in the chapters which treat of the United States. He cites two inaccuracies. He thinks my statement (p. 187): "There have been many thousands of owners of the capital of each of these groups (geographical groups of railways), but the controlling personalities have for a few years been those who hold large stock in the systems known as the Vanderbilt, the Pennsylvania, the Morgan, the Hill, the Harri-man, the Gould, and the More" is incorrect. He, I feel sure, misunderstands the statement. It does not say, or even intimate, that the Pennsylvania has been dominated by Wall Street, as he reads my statement to say. The statement comes after one which tells of the geographical grouping of the railways of the United States, and must be interpreted in connection with it. I merely say that the larger shareholders of the Pennsylvania determine for the most part its policy and management, and that it has powerful influence in the "Trunk Line" territory. The fact that the Pennsylvania has 70,000 (75,000 is the accurate number) shareholders, as Mr. Acworth notes, does not mean that a comparatively small number of them cannot and do not really control its management. The vast majority of its shareholders have no really active interest in its management—only in the fact that the system shall be prosperous so as to pay dividends. Its directors are, to be sure, freely elected by the shareholders, but it is also true that the majority of these vote in a really perfunctory manner. The U.S. Steel has as many as 105,000 stockholders, but a small number control its management.

Mr. Acworth cites the statement that "The railways of the United States had in 1907 a ton-mileage approximately six times that of the British" (p. 225) as proof that I am not trustworthy. He thinks that it was approximately eleven times. His criticism in this instance only goes to show that the British facts are so meagrely published, that even he—England's great student of railways—is somewhat at sea. I note that "Railroad Traffic and Rates," by Johnson and Huebner—the most authoritative American work—makes practically the same mistake as I do (Vol. 1, p. 4).

Since Mr. Acworth has placed his emphasis upon the chapters devoted to Great Britain and the United States, I have replied to his criticisms of these, and to the more important ones only.

Has Mr. Acworth really proved his case that the book has too many inaccuracies? Has he really proved its value as a very concise general statement of the economics and the policies of railway transportation less because of some inaccuracies? I would, however, prefer that my book be shown to be inaccurate in some of its statements—yes, in many—than that I should in making reply show myself unfair in a single instance to Mr. Acworth.

CHARLES LEE RAPER.

LET me first thank Professor Raper for the most courteous tone of his reply. I trust that my criticisms embodied no personal discourtesy to him. If they did, I am heartily sorry. Whether my criticisms were "too severe," the readers of the Journal must judge for themselves. Without going so far as to adopt Jeffrey's attitude, *Judex damnatur cum nocens absolvitur*, I still cannot think that it is the duty of a reviewer to send back a book unreviewed because he cannot speak favourably of it.

Having now read Professor Raper's reply, I do not feel able to withdraw what I have said. But it would not be fair to occupy space in the Journal by a rejoinder in each of the cases that he deals with. And I must leave it to anyone who is sufficiently interested to collate for himself Professor Raper's original statement, my criticism, and his reply. I will, however, deal with just one instance, the last that he refers to. Professor Raper writes :—

"Mr. Acworth cites the statement that 'The railways of the United States had in 1907 a ton-mileage approximately six times that of the British' (p. 225) as proof that I am not trustworthy. He thinks that it was approximately eleven times."

What I said was, not that I thought his estimate inaccurate,

but that "*on his own figures* the English ton-mileage is not approximately one-sixth, but approximately one-eleventh of the American." His own statement was: "The railways of the United States haul upon the whole a tonnage practically two times that of the British. . . . The typical haul per ton upon all the railways [of the United States] was 254 miles in 1910. . . . It is approximately 31 to 50 miles in Great Britain." Taking the tonnage as double, if the haul be eight times as long, the ton-mileage is sixteen times as great; if the haul be five times as long, the ton-mileage is ten times as great. It cannot be approximately six times.

I am sorry to say that I still think the book "has too many inaccuracies," and that "its value is less" because of them.

W. M. ACWORTH

OFFICIAL PAPERS.

Report of an Enquiry into Agricultural Credit and Agricultural Co-operation in Germany. By J. R. CAHILL. [Cd. 6626.] 1913. Pp. xxxvi+528. Price 5s.

NONE too soon has the Board of Agriculture and Fisheries taken in hand the task, more than once pressed upon it, of ascertaining by inquiry on the spot the condition of that co-operative organisation of agriculture to which some foreign countries are known to owe a prosperous state of rural economy such as we ourselves may well envy. The same matter has been dealt with before by unofficial pens. We have also had various Blue Books compiled by diplomatists who, in the words of the late Sir Dominick Colnaghi, at that time Consul-General at Florence, were fitted for the office neither by special knowledge nor by sufficient leisure. The value of such reports is trifling. The masterful report by Sir F. Nicholson on Co-operative Credit, indeed, stands out luminously as a bright success among many failures. However, that report deals with credit only; it was written for India, and conditions have materially changed since it appeared in print. Non-official accounts, although probably affording pleasanter reading, can never attempt to give such minute information—on laws, rules, methods, and the like—as an official publication has space for. But these details are just what make information valuable for practical purposes.

In addressing itself to its new task our Board of Agriculture has rightly singled out Germany for its first inquiry. For it is

in Germany that, up to now, co-operation in the service of agriculture—and more specifically that *cheville ouvrière* of all co-operation, as the late Léon d'Andrimont has styled it, that is, co-operative credit—has attained its highest level and produced the most conspicuous results. And the Board has been fortunate in securing for its research the services of so unquestionably competent and remarkably painstaking a representative as Mr. J. R. Cahill, who had already given proof of his capacity in several similar publications. There are various points which an *homme du métier* could have wished to see treated in a rather different fashion; and however great be the pains that the inquirer has taken, and however precise may have been his study of things on the spot, to a certain extent his tale is bound still to remain a *relatio relatorum*, in which the one-sided opinions of informants necessarily colour his judgment. However, such dubitable points are mere specks in the general production, which may safely be recommended to our agricultural authorities, our would-be organisers of agricultural co-operation, and our agriculturists as a whole, for careful study as an undoubtedly valuable and trustworthy guide.

The arrangement of the matter is likewise convenient and perspicuous. However, its very merit on practical grounds lessens its value a little in this respect that it tends, while minutely and very accurately describing methods, to some extent to obscure underlying principles, which in this case are of prime importance. The author describes methods of the "General Union," the "Imperial Union," and other "Unions" in turn, so as almost to suggest that such methods may be interchangeable parts. And the "multitude of counsellors" of the "Imperial Union" whom he has consulted, seem to have inclined him rather in favour of that body, which has, indeed, "great battalions" to show, but which possesses no common principle and which recent events have demonstrated to be dangerously dependent upon State help. So it is in respect of that mere handful of rural societies with limited liability whose principle the very leaders of the Union concerned repudiate and whose methods presuppose conditions (such as access to the income-tax registers) which are to be met with only in Germany. Limited or unlimited liability, large or small working districts, inquiry or non-inquiry into the object of loans, and whatever else there may be, are all integral pieces of one system or another, the underlying principle of which consistently determines which should be resorted to. Schulze Delitzsch—to whose services to agriculture Mr. Cahill scarcely

does full justice—organised the people with money and with a knowledge of business. Hence the generally “capitalist” colour of his system. Raiffeisen had the small man, down to the very poorest, distinctively in his mind. Therefore he tabooed shares, so far as legislation would permit, and resorted to unlimited liability as a substitute for ready cash—not by any means for the sole purpose of supplying financial “cover,” but rather as a compelling inducement to rich and poor alike to practise the keenest vigilance in respect of even the smallest transactions. The ambition of Haas—an ambition amply fulfilled—was to create a large, popular movement, with *large* agriculture prominently represented in it, favoured and assisted by Governments, and therefore political and promoting class interests. So he was driven to running with the hare while hunting with the hounds. To what dangerous extent his societies piled an “intolerable deal” of liability upon a “poor ha’porth” of security, Herr Heuzeroth has shown in a paper read before the Budapest International Co-operative Congress. And the truly dramatic breakdowns of co-operative banks in Herr Haas’ own country of Hesse since Mr. Cahill wrote shows how full of danger is the system carried out on such lines. Those lines include the facile credit in current account without inquiry into its object which appears to commend itself to Mr. Cahill, but which the best authorities view with grave misgivings as likely to lead to loss. It was those abuses which rightly led the Prussian State-endowed Bank to tighten the reins from 1898 onward. But in doing so it went, in its exactions and its ambitions, beyond what Mr. Cahill appears to have been told. The calamitous collapse of the Haas Central Bank has altered the position of things since Mr. Cahill wrote, and thrown fresh power into the hands of the State-endowed Bank, from tutelage under which the “General Union” has deliberately freed itself, from which the Union of “Industrial Banks,” as Mr. Cahill calls it, has expressed its desire to break loose, and from which the “Imperial Union” has laboured since 1898 to make itself independent.

As a trained linguist Mr. Cahill deals with German nomenclature far more successfully than other authors, whose *gauche* translations are often bewildering. But it is a little to be doubted whether under the name of “taxed value” English readers will detect simple “valuation,” and under that of “caution-credit” fidelity guarantee.

But these are trifles. Looking at the Report as a whole it must be pronounced a distinct success, of great value, instructive

and illuminating, trustworthy and remarkably clear in its language.

HENRY W. WOLFF

Departmental Committee on the Night Employment of Male Young Persons in Factories and Workshops. Report.
[Cd. 6533.] 1912. Price 3d. *Evidence.* [Cd. 6711.]
1913. Price 2s. 4d.

THE night employment of children was one of the subjects of the earliest Factory Act. In 1850 the prohibition of the employment of all young persons aged under eighteen between 6 p.m. and 6 a.m. was made absolute throughout the textile trades. But, as the Factory Acts were gradually extended during the succeeding quarter of a century to other industries, exceptions were allowed to the normal extension of the prohibition. These now survive partly in the form of statutory exemptions, and partly in the form of special orders of the Home Secretary, which together have the effect of legalising the employment of boys aged over fourteen, or, in some cases, over sixteen, in sixteen specified kinds of works or processes. In 1911 an order was issued to permit the employment at night of boys over sixteen in the manufacture of artificial silk, which a German firm had decided to introduce into England, partly on account of the new Patent Act regulations. The managing director of the British company formed to carry out the project informed the Departmental Committee that "the work is degrading in its simplicity to full-grown men," and that therefore "night employment is essential" for boys. Protests were, however, made in Parliament against the extension of the principle of night work, and, in consequence, Mr. Churchill appointed a Committee to inquire into the whole question.

The evidence given before the Committee contains a mass of interesting information with regard to the detailed organisation of the trades in question. Glass works appear to be the largest employers of boys in night work, and after them iron mills. The unions in the glass-bottle trade on the whole are opposed to the raising of the minimum age for night employment. The men and boys generally work in groups of four or five, known as "holes" or "chairs," and if labourers were substituted for boys in the unskilled branches of the work, it is feared that the share of the group's piece-work earnings, which goes to the skilled "blowers" and "gatherers," would be reduced. But the secretary

of a union representing the London men favoured the abolition of night work for boys on the ground that it was deleterious to their health. In London apparently employers have taken advantage of the rule permitting the employment of boys at night, to engage them not only for the actual work of making bottles, but also to stoke furnaces. The evidence of another union secretary, who objected to any interference with the night work of boys, showed in a striking way the "blind-alley" character of the glass-bottle trade for boys. In five districts 1545 boys under eighteen were engaged in making bottles, as compared with 2053 men over eighteen. Miss Sanger gave evidence on behalf of the International Association for Labour Legislation, which has been endeavouring for some time to secure an international treaty to prohibit the night work of boys, similar to that which already prohibits the night work of women. It is to be hoped that the conference of representatives of Governments, which is to be held to discuss the problem this year, will succeed in securing effective international co-operation.

The recommendations of the Committee may be summarised as follows : (1) Withdrawal of eight out of the sixteen exemptions from the prohibition of night work ; (2) the raising of the minimum age for night work from fourteen to sixteen in glass works, iron mills, and paper mills ; (3) permission to be granted to employ boys up to 9 or 12 p.m. only in newspaper printing (on two days in the week), china clay works, and electrical stations ; (4) periodical official medical inspection of all the boys aged sixteen to eighteen who are still allowed to be employed at night.

F. KEELING

Report of the Committee of Inquiry into the Conditions of Employment in the Linen and Other Making-up Trades of the North of Ireland. [Cd. 6509.] 1913. Pp. xxviii+191.

THE Report on the Conditions of Employment in the Linen and other Making-up Trades of the North of Ireland is an extremely interesting contribution to the literature of women's work and wages. Many of the processes in these trades, e.g., hand-embroidery, thread-drawing, machine-stitching, are carried on in the homes of women out-workers in Belfast and other towns and villages of the North of Ireland. Very little of the work is really unskilled, and some of it requires a very high degree of skill. But both skilled and unskilled branches are carried on under conditions with which experience of home-work in other trades has made us only too familiar. Long hours of work for a

miserable wage, the employment of children after school hours, and in the country districts the abuses of the truck system, are common features of the industry.

It is true that gross underpayment only exists in certain branches of the trade, and even in these branches many employers appear to pay fair rates. There seems, however, to be a total absence of uniformity in the practice of different firms. One worker alleged, for example, that when working for one firm she could earn at the rate of 2d. an hour, but when employed by another firm on exactly the same sort of work, she could only make a $\frac{1}{2}$ d. a hour.

The evidence given by employers suggests that they are, on the whole, desirous that their workers should be able to earn a fair wage, (the standard of "fair" appears to be 10s. or 12s. a week), but sometimes they seem to be ignorant of the amount which a worker of average efficiency can earn at the piece rates paid; in other cases the competition of the less scrupulous employers has forced wages down to what is admitted to be a "sweating rate."

The principal recommendation of the Committee is the application of the Trade Boards Act to certain processes of the making-up trades. To this proposal the employers as a whole have offered no opposition, provided the decisions of the Board apply equally to their competitors in other parts of the United Kingdom.

G. JEBB

Report to the Board of Trade on the Industrial Disputes Investigation Act of Canada, 1907. By SIR GEORGE ASKWITH, Chief Industrial Commissioner. [Cd. 6603.] 1913. Price 3½d.

THIS Report is the outcome of a visit paid to Canada by Sir George Askwith. It is chiefly concerned with a description and analysis of the Canadian Act, together with some account of the feeling of public opinion towards it in Canada. "The simple purpose of the Act," the Report states, "is to ensure the recognition of the interests of the public, as a third party, in trade disputes, and the insistence that that third party, through the Government, shall have a voice in regard to a dispute affecting their interests." The Act, however, is confined :—

1. To industries whose uninterrupted continuance is of high importance to the well-being of the nation (mining, railways, shipping, and other public utilities.

2. To a brief suspension of the right to stop, as distinct from a complete prohibition of stoppage.

Thus the Act differs essentially from compulsory arbitration.

To quote the Report again: "It does not destroy the right of employers or workpeople to terminate contracts. It legalises the community's right to intervene in a trade dispute by enacting that a stoppage, either by strike or lock-out, shall not take place until the community, through a Government department, has investigated the difference with the object of ascertaining if a recommendation cannot be made to the parties which both can accept as a settlement of the difference. It presupposes that industrial differences are adjustable, and that the best method of securing adjustment is by discussion and negotiation."

In summing up at the end Sir George Askwith gives it as his opinion "that the forwarding of the spirit and intent of conciliation is the more valuable portion of the Canadian Act, and that an Act on these lines, even if the restrictive features which aim at delaying stoppage until after inquiry were omitted, would be suitable and practicable in this country."

Return of Correspondence with the Bank of England and Messrs. Samuel Montagu and Company, relating to the Purchases of Silver in 1912. [H. of C. 400.] 1912. Price 1s. 3d.

Copy of Papers, including Communications which have passed between the Secretary of State for India and the Government of India, regarding the question of the Establishment of a Mint for the Coinage of Gold in India. [H. of C. 495.] 1913. Price 6½d.

Memorandum on India Office Balances (prepared under the instructions of the Secretary of State for India). [Cd. 6619.] 1913. Price 2½d.

Report on the Operations of the Paper Currency Department during the year 1911-12. 1913.

THE first three of the above are documents published in connection with the recent Parliamentary attack on the India Office. The fourth, by Mr. E. M. Gauntlett, contains some valuable data, in continuation of Mr. Gillan's report of last year (see ECONOMIC JOURNAL, vol. xxii., p. 145), respecting the present position of the sovereign as a medium of exchange in India. The return which relates to the silver purchases has not much economic interest, apart from the light which it throws on the

organisation of the silver market. The history of proposals for a gold coinage in India contains several documents of historic interest, especially an important despatch from the Government of India to the Secretary of State (August 24th, 1899), acknowledging the receipt of the report of the Fowler Committee, which has not, so far as we know, been published previously. The Memorandum on the management of the India Office balances makes public a good many details for the first time. The student of Indian financial arrangements will find all these documents useful.

Memorandum and Statistical Tables, showing the Production and Consumption of Iron Ore and Pig Iron, and the Production of Steel, in the United Kingdom and the Principal Foreign Countries in Recent Years, and the Imports and Exports of Certain Classes of Iron and Steel Manufactures. [H. of C. 402.] 1913. Price 7d.

To be reviewed.

Report of the Departmental Committee to Enquire and Report as to Buildings for Small Holdings in England and Wales, together with abstracts of the evidence, appendices, and a series of plans and specifications. [Cd. 6708.] 1913. Price 11s. 3d.

A DETAILED report on the best types of houses and farm equipment for small holders, and of cottages for farm labourers. There is a good deal of evidence as to cost from the witnesses, but the report does not generalise in any way about this. A sub-committee visited Sweden and report on what they saw. The plans and specifications at the end are numerous and detailed.

Report of an Enquiry by the Board of Trade into the Earnings and Hours of Labour of Workpeople of the United Kingdom. VIII.—Paper, Printing, etc., Trades; Pottery, Brick, Glass, and Chemical Trades; Food, Drink and Tobacco Trades; and Miscellaneous Trades in 1906. [Cd. 6556.] 1913. Price 2s. 8d.

To be reviewed.

Statistical Abstract for Foreign Countries in each year from 1900 to 1910–11. [Cd. 6698.] 1913. Price 2s.

Return Showing the Average Prices of Wheat per Imperial Quarter in the United Kingdom, France, Germany, and the

United States, in each year from 1840 to 1912, with particulars as to rate of Import Duty leviable in each country during each year. [H. of C. 45.] 1913. Price ½d.

Return Showing for each Financial Year from 1875 to 1913 the total amount of Dead Weight Debt outstanding on the 1st April, and a similar statement in respect of other Capital Liabilities, with other particulars relating to the National Debt. [H. of C. 82.] 1913. Price 1d.

Comparative Statement of Pauperism and Cost of the Relief of the Poor in certain years from 1848-9 to 1911-12. [Cd. 6675.] 1913. Price ½d.

The following figures are extracted from the above return :—

Year.	Ratio of pauperism per 1,000 of population.		Total annual Expenditure.	Average cost per head.		Average poor rate per £ of rateable value.
	Indoor.	Outdoor.		Indoor.	Outdoor.	
			£	£ s. d.	£ s. d.	s. d.
1849	7·7	54·4	5,792,963	7 17 8	3 11 2	1 8·5
1860	5·8	36·3	5,454,964	8 0 9	4 0 2	not known
1870	7·1	38·2	7,644,807	9 11 8	4 5 8	1 5·6
1880	7·1	23·2	8,015,010	9 14 10	4 12 4	1 2·4
1890	6·6	18·8	8,434,345	10 2 11	4 11 4	1 1·5
1900	6·6	15·8	11,567,649	12 11 1	5 6 1	1 3·8
1910	8·0	15·2	14,849,584	12 18 1	6 3 10	1 4·6
1912	7·6	11·3	14,463,902	13 16 9	5 16 3	1 3·9

CURRENT TOPICS

THE returns with regard to the working of the Unemployment Insurance scheme in the compulsorily insured trades, as published in the *Board of Trade Labour Gazette*, provide a new measure of unemployment. Since February figures have been given with regard to the number of men claiming benefit for each week after 15th January, the date from which benefits became payable. The percentage of the number of claims to the number of Unemployment Books issued in each group of occupations is the most satisfactory measure of unemployment which has hitherto been obtained. The main difficulty connected with it is the fact that the men who have taken out Unemployment Books are constantly leaving the compulsorily insured trades. Their books may or may

not (in accordance with the law) have been returned to a Labour Exchange. On the other hand, the return of the actual payments made each week by the local offices of the Unemployment Fund is not a satisfactory measure of unemployment, because it does not include the claims paid, through Trade Unions, in accordance with Section 105 of the Act. In February 22,641 "indirect claims" were made through Trade Unions, as compared with 65,005 "direct claims" dealt with by the Labour Exchanges and local agencies. The corresponding figures for March are 17,522 and 48,055. The percentage of claims made to books issued is markedly higher in London and the south-eastern counties, and in Ireland, than in the remaining six areas into which the country is divided. This is true not only of the insured trades as a whole in each of the four months January, February, March, and April. It applies also throughout the period to each of the six groups of occupations, into which the insured trades are divided, with a very few exceptions. The following table shows the percentages for all insured trades together:—

	31st Jan.	28th Feb.	28th Mar.	25th April.
London	9·4	8·6	6·0	4·5
Ireland	8·2	8·2	8·4	7·6
Whole of United Kingdom	5·0	4·4	3·5	2·8

It is noticeable that the Unemployment Insurance* percentages are considerably higher than the Trade Union unemployment percentages in all the groups of trades in which a comparison can be made.

A REMARKABLE sidelight upon the proportions of skilled and unskilled labour in industry is given by the classification of the 2,297,326 Unemployment Books issued up to 1st February, 1913. Even after navvies and machinists of all kinds have been placed in the category of specific "trades," there remain no fewer than 722,163 "labourers, etc.," in the insured trades—i.e., about a third of all the insured persons. Only about 10,000 women are included in the scheme. The decisions of the Umpire, which have very largely placed the manufacture of accessories and parts for machinery and vehicles outside the category of insured trades, have incidentally had the effect of excluding from the scheme some thousands of women engaged in the metal and cycle trades. The Umpire has had a difficult task, and his decisions have already attained to the dimensions of volumes. It involves no criticism on his work to express the hope that the complicated frontier between insured and uninsured occupations, which he has felt obliged to establish, will be rounded off at an early date by orders

of the Board of Trade bringing within the scope of the scheme occupations, now excluded, which are, so far as the workman is concerned, identical with those already included within it.

THE scheme has undoubtedly encouraged some Trade Unions to pay unemployment benefits, where they did not do so before. It was anticipated that Unions, which formerly paid unemployment benefit, would use the grant of seven shillings from the Government's Unemployment Fund to reduce their own liabilities in meeting claims—possibly lowering their rates of contribution. But some important Unions, such as the Amalgamated Society of Engineers and the Scientific Instrument Makers, have added the seven shillings provided under the scheme to the benefits formerly paid, so that many of their members can now draw sums approximating to a pound a week during unemployment. The arrangements under Section 105 of the Act, for payments of benefit to Trade Unionists through their societies, are almost necessarily somewhat complicated. Many of the branch secretaries of the Unions have experienced difficulty in fulfilling the Board of Trade requirements with regard to the filling up of forms, etc. Accounts from different parts of the country seem to show that the Courts of Referees are inclined to be generous to the workpeople against whose claims to benefit the Insurance Officers have raised objections. One of the acutest hardships caused by the drafting of the scheme arises out of the definition of "continuous unemployment" given in section 107 (1). This undoubtedly is not sufficiently elastic to enable casual ship-repairers and others to obtain the benefits, to which they would seem to be equitably entitled.

OUR South African correspondent writes as follows with reference to Mr. Morgan Rees's article in the March number of the ECONOMIC JOURNAL:—Mr. Morgan Rees has given an interesting comparison of wages and cost of living in South Africa, referring especially to Johannesburg: but some of the figures need modification on account of the recent changes. Cost of living, at least in Johannesburg, is falling, because the increase in population and the growth of more settled conditions outweigh the influence of the world-wide rise in prices. Thus, as to food: the diet mentioned on p. 135 should not cost more than 30s. per week; there are good restaurant meals to be had at a shilling—breakfast, lunch, or dinner; and full board for a workman at one of the mines, where things are done particularly well, costs £6 a month.

Meat and vegetables are cheaper than in England, and probably the whole cost of food is very little greater. Rent is still excessive, but not quite so extravagant as Mr. Rees states. A good four-roomed brick cottage, with kitchen and bathroom, suitable for an artisan's family, can now be built for £500 (according to information kindly supplied by the town valuer), and the land needed ought not to cost more than £50 at the most. On the mine referred to above, the rent of a workman's cottage is from £3 to £5 a month, while single rooms are let to miners for 10s. a month. In the suburbs the rent of the cottage should be £5 or £6 a month. Johannesburg is a professional and businessman's town rather than a workman's, and the cost of living to the middle classes, though high, is not quite what it is usually put at. For example, board at a good club costs about £10 a month: one can get lunch in town for 1s. 6d. to 2s. 6d.; kaffir servants (who do as much work as English ones) mostly get £3 a month; and a man who settles in the town and builds his own house, would find a little suburban villa in a quarter acre of garden cost for interest, depreciation, rates, and water about £80 to £100 a year. An interesting aspect of these figures is the way in which they indicate the approximation that is taking place between England and one of the colonies. The approximation is noticeable both in wages and prices.

"W.J.A." writes: Among the discussions in the Economic History sub-section of the International Congress of Historical Studies, held in London in April, one of the most instructive was that introduced by Professor Schäfer, of Berlin. It was apropos of the publication, now on foot, of the records of dues paid at Kronborg by ships passing the Sound. Professor Schäfer pointed out that the Sound was for centuries the most frequented maritime thoroughfare of the world; and as the records are extant for the years 1497, 1503, 1528, 1536-1547, and from 1557 almost complete to the abolition of Sound dues in 1857, they constitute an exceedingly valuable, though hitherto hardly used, source of information for the history of commerce and shipping. A volume presenting in tabular form the information as to number, ownership, and origin of the shipping, for the period 1497-1660, was published in Copenhagen in 1906, under the editorship of Mrs. N. E. Bang (*Tabeller over Skibsfart og Varetransport*, etc.); and a second is about to appear, dealing with the nature and value of the cargoes for the same period. For these the cost has been borne by a certain Carlsberg Fund at Copenhagen. From 1660, however, the information concerns other countries far more than Denmark,

especially as Danish ships paid nothing; and the Danish fund is no longer available. The energy of Professor Schäfer, who has done so much for Hanseatic history, has already got together, from various Governments, municipalities, societies, and individuals on the Continent, a sum sufficient to pay for the tabulation and printing of the material down to the year 1800. But before the editorial staff is disbanded, a complete job ought to be made of the whole business down to 1857. Here is an opportunity, as Professor Schäfer justly represented, for England to take its fair share in an international enterprise which, after all, concerns its own past history very vitally. A certain modest amount of help has already been given by and through the British Academy. But much more ought to be done. Perhaps it is hopeless to expect even a small grant from our Government, which, curiously enough, usually takes up a more narrowly official and cautious attitude in such matters than the more bureaucratic Governments of the Continent. But there ought to be British shipowners to whom the project commends itself; and Professor Dietrich Schäfer, Friedrichstr. 7, Steglitz, would gladly give further information.

It is not possible at present to do more than indicate the provisional programme of the section for Economics and Statistics at the meeting of the British Association to be held at Birmingham from September 10 to 17. The presidential address will be delivered by Rev. P. H. Wicksteed, who is president of the section. With reference to the sectional proceedings, the experience of recent years has shown the advantage of endeavouring to concentrate discussion on certain topics. By this method the objection to which such gatherings are subject (namely, the disconnected nature of the papers and discussions) is obviated to some extent, and a day can be assigned to a specific topic instead of the morning being divided amongst some four papers on distinct subjects. By the former method, too, a longer time can be given to speakers, who, in some cases, are invited by the committee to take part in the debate. One debate for which it is proposed to arrange a day will probably be on some aspects of the cost of living, to which Professor Bowley and Mrs. Wood are likely to contribute papers. Considerable local interest has been shown lately in the question of canal navigation, and a day has been allocated to this subject. There will be papers by Lord Shuttleworth, Sir John P. Griffith, Mr. R. B. Dunwoody, and others; and Sir John Brunner, Mr. Neville Chamberlain, Mr. Frank Impey, Mr. Frederick Morton, and Mr. J. F. Sauer are

expected to be able to join in the discussion. It is also proposed to deal with the position and exposition of economic theory from the point of view of related studies and activities. In recent years theoretical, and in particular mathematical, economics have not been prominent at these meetings; but at Birmingham the latter will be represented by a paper from Mr. A. J. Kenny, of Birmingham University, entitled, "How far are Mathematical Methods really of use in Economic Science?" It is hoped that some theoretical papers may be arranged for later. Professor Oldham will read a paper on "The Study of Business Organisation," and Professor Kirkaldy on "The Economic Effects of the Opening of the Panama Canal." The drawing up of a programme for this meeting is always something of a problem. The object of the Association is to encourage contributions (either in the form of suitable papers or by discussion) from those who are not professional economists, while, at the same time, an endeavour should be made to attract the specialist by providing discussions of interest to him; and finally, there are the claims of the general body of members of the Association who desire to obtain some competent guidance on those economic questions which occupy their attention at the moment. Even when an equilibrium has been discovered between these aims, there is still the difficulty of finding an ideal distribution of the available time between the papers and speakers that turn out to be available at the meeting. All that can be said is that these various competing claims have, at least, been kept carefully in view by the committee of the section.

THE *Société d'Economie Politique* of Paris announce that the subject has been changed in the competition (announced in the *ECONOMIC JOURNAL*, December, 1912, p. 644) for the prize founded by M. Emile Marcet, and an extension of time granted. The subject of the competition is now "The Evolution of Protectionist Ideas since 1815." The prize will consist of a gold medal; worth about 300 francs, and a money payment of 1,000 francs. The manuscripts (in French) should be sent before December 31st, 1914, to M. Daniel Bellet, 18 Rue des Canus, Maison-Laffitte (Seine-et-Oise), from whom further particulars can be obtained.

WE regret to announce the death last month in his seventy-second year of M. Alfred de Foville, perpetual secretary of the *Académie des Sciences morales et politiques*. An obituary notice

of M. de Foville will appear in the September number of the *Journal*. His death, following so soon after the recent deaths of MM. Levasseur, Molinari, and Passy, to the youngest of whom, however, he was twelve years junior and to the oldest twenty-three years junior, marks with further emphasis the passing away, after an unchallenged reign of nearly fifty years, of the old-fashioned school of French economists.

Appointments.—Mr. J. Eadie Todd, M.A. (Edin.) and B.A. (Oxon.), formerly lecturer in Economic History at Edinburgh University and lately lecturer at McGill University, has been appointed Professor of History and Economics in the University of Dalhousie, Halifax, Nova Scotia.

Mr. A. N. Shimmin, M.A., has been appointed an Assistant Lecturer in Economics in the University of Manchester.

RECENT PERIODICALS AND NEW BOOKS.

Economic Review.

APRIL, 1913. *Trade Unions, Trade Lists, and the Law.* PROF. W. M. GELDART. *The Housing Question.* DR. T. C. FRY. *Co-partnership and Labour.* L. V. LESTER-GARLAND. *India and the Sugar Convention.* D. A. BARKER. *Outdoor Relief.* C. F. ROGERS. *Dr. Carlyle on Wages.* PROF. EDWIN CANNAN. A long and severe review. PROF. ASHLEY discusses Prof. I. Fisher's various recent articles, and MR. SIDNEY BALL reviews at some length Prof. Pigou's *Wealth and Welfare*.

Statistical Journal.

FEBRUARY, 1913. *The Population of England in the Eighteenth Century.* E. C. K. GONNER. A learned study of the authorities. *Note on Urban and Rural Variations according to the English Census of 1911.* THOMAS A. WELTON. A study of the recent "tendency towards loss of population by migration in the case of several of our largest cities."

MARCH, 1913. *The Panama Canal and Competition for Trade in Latin America, the Orient, and Australasia.* PROF. LINCOLN HUTCHINSON. *Prices of Commodities in 1912.* A. SAUERBECK. *The Rate of Interest on Investments in 1912.* R. A. LEHFELDT. Prof. Lehfeldt brings the calculations of a former article up to date.

APRIL, 1913. *An Account of an Inquiry into the Extent of Economic Moral Failure among certain types of Regular Workers.* D. C. JONES. The results of circularising certain public and private employers in regard to the number of employees dismissed, and the relative importance of different causes of dismissal.

Bankers' Magazine.

MARCH, 1913. *Bank Work from a Junior Clerk's Standpoint: Collection and Payment of Cash Articles.* A very useful account of the machinery and technique of the Clearing House.

APRIL, 1913. *Balance-sheets of Banks in the United Kingdom during 1912.*

MAY, 1913. *Proportion of Cash to Deposits of Banks in the United Kingdom during 1912. Canadian Banking in 1912.* H. M. P. ECKARDT. A valuable summary of the banking position and of current banking history in Canada.

Women's Industrial News.

APRIL, 1913. *The Tea-shop Girl* (15 pp.). BARBARA DRAKE. An interesting report of an Inquiry undertaken by the Investigation Committee of the Women's Industrial Council.

Bulletin of the British Library of Political Science.

JANUARY, 1913. This is the first number of a new quarterly Bulletin dealing with the library attached to the London School of Economics. Each number contains lists of the principal recent accessions, of some of the principal desiderata, and of duplicates available for exchange. In addition, there is to be a series of *Selected Bibliographies*. I. *The Bibliography of the Nationalisation of the Coal Supply*.

APRIL, 1913. *Selected Bibliographies*. II. *Bibliography of the Civil Service*. MISS W. C. HILL.

Quarterly Journal of Economics (Harvard).

FEBRUARY, 1913. *A Compensated Dollar*. IRVING FISHER. Prof. Fisher pursues his now familiar theme. *The Organisation of the Boot and Shoe Industry in Massachusetts before 1875*. BLANCHE E. HAZARD. *The Locomotive Engineers' Arbitration: its Antecedents and its Outcome*. U. J. CUNNINGHAM. *The Decision on the Union Pacific Merger*. STUART DAGGETT. *Frankfort-on-the-Main: a Study in Prussian Communal Finance*. II. ANNA YOUNGMAN. *Railway Rates and Joint Cost Once More*. F. W. TAUSSIG. A criticism of the views advanced on this subject by Prof. Pigou in *Wealth and Welfare*.

American Economic Review (Boston).

DECEMBER, 1912. *The Definition of Price*. FRANK A. FETTER. A very large collection of the definitions proposed by various authors in the last 100 years. Prof. Fetter favours a definition which is without reference to money. *Transportation and Competition in South American Markets*. H. PARKER WILLIS. *The Impatience Theory of Interest*. HENRY R. SEAGER. A criticism of Prof. Irving Fisher. *Agricultural Credit in the United States*. E. W. KEMMERER. A discussion of how far the National Banks can, under the existing law, serve the needs of the farmer, and how far the adoption of a Co-operative Credit System might prove useful.

MARCH, 1913. *Objections to a Monetary Standard Based on Index Numbers*. DAVID KINLEY. A criticism of Prof. Irving Fisher's proposals. Apart from the point that a unit of money would be maintained by Prof. Fisher's plan at an equivalence with a fixed quantity of goods, but not with a fixed quantity of utility, Prof. Kinley's criticisms are based on a theory of money which would not commend itself to those who are in any sort of general agreement with the monetary logic underlying Prof. Fisher's proposals. Prof. Kinley lays stress on the importance of knowing the precise cause of the rise of prices, whether due to variations in the supply of money or of goods or to a changed rapidity in the sale of goods or in the volume of credit, before attempting to remedy its consequences. *The Commerce Court Question*.

SAMUEL O. DUNN. *Methods of Business Forecasting based on Fundamental Statistics*. JAMES H. BROOKMIRE. Deals with the methods of Jevons, Benner [an Ohio farmer, author (in 1875) of *Book of Prophecies*], Babson, and Irving Fisher. *The Tariff Board and Wool Legislation*. W. S. CULBERTSON.

MARCH, 1913, SUPPLEMENT. *Papers and Proceedings at the 25th Annual Meeting of the American Economic Association*. *Population or Prosperity*. FRANK A. FETTER. Presidential address on the current importance of Malthusian ideas to the United States. *Standardising the Dollar*. IRVING FISHER. Followed by an interesting and critical discussion. *Banking Reform in the United States*. E. W. KEMMERER. Both the paper and the discussion which followed it contain interesting evidence of the present state of public opinion in the United States towards the proposals of the Monetary Commission. *Theories of Distribution*. Round Table Discussion opened by Prof. Patten. *Farm Management*. Round Table Discussion. *Frontiers of Regulation and What Lies Beyond*. JOHN M. CLARK. A criticism of the policy of permitting monopoly, subject to price regulation by Government. *The Economics of Governmental Price Regulation*. CHESTER W. WRIGHT.

Political Science Quarterly (New York).

MARCH, 1913. *The Tariff Board's Wool Report*. L. D. H. WELD. *Recent Tax Reforms Abroad*. III. E. R. A. SELIGMAN. Mainly concerned with Australasia.

Annals of American Academy (Philadelphia).

JANUARY, 1913. A series of articles on *Canadian National Problems*, including:—*Reciprocity*. CLIFFORD SIFTON. *Canada and the Preference*. S. M. WICKETT. *Mineral Resources of Canada*. G. A. YOUNG. *Canadian Banking*. H. M. P. ECKARDT.

MARCH, 1913. A series of articles on *Prison Labour*.

Journal of Political Economy (Chicago).

FEBRUARY, 1913. A series of articles on Schools of Commerce in American Universities, including Chicago, the Wharton School, Dartmouth College, and Wisconsin. *Canadian Banking Legislation*. S. R. WEAVER. An account of the provisions of a new Bill introduced at the end of 1912.

MARCH, 1913. Further articles on Schools of Commerce, including the North-western University School and the Boston High School, and on the value of "vocational training" in Commerce. *The Industrial Training and Placing of Juveniles in England*. H. WINIFRED JEVONS. A summary for American readers of what has been done in England.

Bulletin of the U.S. Bureau of Labour (Washington).

No. 101. Care of Tuberculous Wage-earners in Germany.

No. 102. British National Insurance Act, 1911.

No. 103. Sickness and Accident Insurance Law of Switzerland.

No. 104. Lead Poisoning in Potteries, &c.

No. 105, PARTS I. AND II. Retail Prices, 1890 to 1911.

No. 106, PARTS I. AND II. Retail Prices, 1890 to June, 1912.

Revue d'Economie Politique (Paris).

- MARCH-APRIL, 1913. *Quelques remarques sur la rente du sol urbain.* ACHILLE LORIA. *Le Chemin de fer transafricain. Les conclusions d'une mission d'études.* R. LEGOUZ. *La loi soudanaise sur l'apprentissage.* R. MAUNIER.

Journal des Économistes (Paris).

- FEBRUARY, 1913. *La Banque d'Angleterre.* F. HUTH JACKSON. Reprinted from *Lectures on British Commerce*.
 MARCH, 1913. *L'Impérialisme économique.* YVES GUYOT. *Le Problème du crédit.* W. W. CARLILE.
 APRIL, 1913. *L'École autrichienne d'économie politique.* FEILBOGEN. This article (one of a long series) deals with Schumpeter. *La Situation économique et financière de l'Italie.* AUGUSTE PAWLOWSKI. *L'Octroi de Paris. Le passé. Le présent. L'avenir.* (30 pp.) P. DE BIERMONT.

Revue Économique Internationale (Brussels).

- FEBRUARY, 1913. *La Réforme fiscale en Belgique.* G. BIGWOOD. A discussion of the Belgian budgetary arrangements by a professor in the University of Brussels. *L'Italie économique pendant l'année de la guerre.* G. NICOTRA. *La Crise charbonnière en Russie.* M. LANWICK.
 MARCH, 1913. *La Revision des Tarifs en Amérique.* CH. A. CONANT. *La Hausse du Taux de l'Intérêt et la Hausse des Prix.* CH. RIST. In distinction from A Stockbroker, whose article in the ECONOMIC JOURNAL he cites, Professor Rist emphasises the world-wide universality and simultaneity of the recent rise in the rate of interest. He ascribes it to the high level of industrial profits, which, in its turn, is the direct result of high prices. *La Convention du Saint-Gothard.* A. GOBAT. *L'Industrie Agricole en France.* M. LAIR. *La Périodicité des Disettes en Russie.* B. CHLEPNER. The periodicity of lean years in Russia may be interesting to students of similar phenomena in India.
 APRIL, 1913. *Le port de Gand.* CH. CHRISTOPHE and M. DE BEER. *Les facteurs économiques de l'exportation des Capitaux Belges.* MAX L. GÉRARD. Contains some statistics of the rate of interest payable on new emissions in Belgium, compared to those lately worked out for England by Prof. Lehfeldt in the *Statistical Journal*. *Les Maximes fondamentales du Régime des chemins de fer de l'Etat.* CHEVALIER DE WITTIK. A general discussion of principles. *La Hausse des Prix.* J. PAZOUSEK. Emphasises, with the help of some statistics, the part played by the great growth in the use of cheques and notes in all European countries.

Archiv für Sozialwissenschaft und Sozialpolitik (Tübingen).

- JANUARY, 1913. *Neuorientierung in der Sozialpolitik?* PROF. ALFRED WEBER. *Zur historischen Analyse des Patriotismus.* I. ROBERT MICHELS. Emphasises the comparatively late development of the *Vaterlandsbegriff*; concluded in the March number. *Die Arbeitsteilung im geistigen Leben.* WILLI HELLPACH. *Die neueste Entwicklung des Syndikalismus.* CHRISTIAN CORNÉLISSSEN. Deals

to a large extent with last year's events in England. *Die Juden und das Wirtschaftsleben* (pp. 64). J. GUTTMANN. A searching criticism of Professor Sombart's book. *Die Kaufkraft des Geldes*. I. W. EGGERSCHWYLER. A full analysis and criticism of Professor Fisher's "Purchasing Power of Money"; concluded in the March number.

MARCH, 1913. *Die naturphilosophischen Grundlagen der Wirtschaftstheorie*. PROF. BULGAKOFF (of Moscow). *Zur Systematik der Lohnmethoden*. K. KUMPMANN. *Petroleum-Monopol. Ueber die Fortschritte der gesetzlichen Regelung der Arbeitszeit in Frankreich*. P. LOUIS. *Die neue wohnungspolitische Gesetzgebung Oesterreichs*. KARL FORCHEIMER. *Literatur zum Petroleummonopol*. T. M. VOGELSTEIN. *Der Geburtenrückgang*. S. BUDGE. A discussion of the theories of Prof. Julius Wolf.

Jahrbücher für Nationalökonomie und Statistik (Jena).

FEBRUARY, 1913. *Zur Agrargeschichte Schwedens im früheren Mittelalter*. EARL WILLGREN. *Die deutsche soziale Gesetzgebung und der Geld- und Kapitalmarkt*. HANS HILBERT. *Ein neuer Versuch zur "Rettung" des Malthus'*. JULIUS WOLF.

MARCH, 1913. *Das neue Privilegium der Oesterreichisch-ungarischen Bank*. R. ZUCKERKANDL. *Wandlungen und Entwicklungstendenzen in der deutschen Answanderung*. W. MÖNCKMEIER. *Der Aufschwung der Fabrikindustrie in Kanada*. C. BERGER.

APRIL, 1913. *Der Kommunale Wohnungsnachweis*. M. RUSCH. *Das Leuchtöl-monopol des Deutschen Reiches*. E. SCHMIDT.

Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft (Munich).

PART IV., 1912. *Theorie des Sparens und der Kapitalbildung* (78 pp.). R. LIEFMANN. *Der preussische Staatsschatz und der Reichskriegsschatz*. L. KATZENSTEIN. The history and the principle of the German war-chest. *Ein Vorschlag zur Reichsbesitzsteuer*. L. SEVIN. *Das Wirtschaftsleben der Vereinigten Staaten im ersten Jahrzehnt des 20. Jahrhunderts*. E. SCHULTZE. *Agrarverfassung und Grundsteuer in British-Ostindien* (60 pp.). V. v. LEYDEN. A summary mainly derived from second-hand and out-of-date authorities. *Nordamerikanische Universitätseinrichtungen*. G. S. FULLERTON.

Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung (Vienna).

PART I., 1913. *Eine "dynamische" Theorie des Kapitalzinses* (pp. 62). E. VON BÖHM-BAWERK. A discussion of a theory of Schumpeter's. *Die handelspolitischen Beziehungen Österreich-Ungarns zur Türkei*. OTTO HECHT. *Vilfredo Pareto's Manuel d'économie politique*. KNUT WICKSELL. A criticism.

Weltwirtschaftliches Archiv (Jena).

JANUARY, 1913. This is the first issue of a new quarterly Journal, under the editorship of Professor Bernhard Harms of Kiel. The subscription to each volume, complete in two parts, is 20 marks;

the part now issued contains 375 pp. It is described as a *Zeitschrift für Allgemeine und Spezielle Weltwirtschaftslehre*, and is to deal with the economics of international relations in all their aspects. *Weltwirtschaft und Weltwirtschaftslehre*. BERNHARD HARMS. This article is in the nature of an introduction to the Journal. *Individuum und Welt in der Neuzeit*. F. TÖNNIES. *Die Weltspur der Eisenbahnen*. K. THIESS. *Das internationale Wechselrecht*. F. MEYER. *Die Serversicherung im Weltverkehr*. E. FITGER. *Die Internationale Organisation des Frankfurter Metallhandels*. R. LIEFMANN. A large amount of space is devoted to brief reviews and notes on new books, and to *Kollektivbesprechungen*, of which this number contains:—*Bibliographie relative au Commerce extérieur de la France*. M. BELLOM. *Neuere britischimperialistische Literatur*. F. HOFFMANN. *Die wirtschaftlichen Beziehungen Spaniens zum lateinischen Amerika in der neueren spanischen Literatur*. F. BERNIS. Finally the number concludes with 35 pp. of monetary and financial statistics, *International-vergleichende Statistik des Geldmarktes der Börsen und der Warenmärkte, August, September, October, 1912*, which are exceedingly valuable, and by including a number of extra-European countries cover a much wider field than any other available source of reference. The value of these statistics would be enhanced if they could be published less than three months in arrears.

Scientia (Bologna).

MARCH, 1913. *Wert und Mehrwert. I Teil: Die Monopol-Theorie des Mehrwertes*. F. OPPENHEIMER. Much concerned with what happens when "Robinson lebt mit Freitag in genossenschaftlichen Wirtschaftsverbände."

MAY, 1913. The above article is continued,—II. Teil: *Kritik der Marx'schen Theorie des Mehrwertes*. F. OPPENHEIMER.

Giornale degli Economisti (Rome).

FEBRUARY, 1913. *Sulla distribuzione della proprietà in Sicilia*. G. BRUCCOLERI. *Gli odierni aspetti dell' economia agraria: le combinazioni dei fattori produttivi*. C. DI NOLA. The law of diminishing returns is discussed. *Le origini del banco giro*. E. INCLIMONA.

MARCH, 1913. *La teoria del mercato monetario*. M. FANNO. With Fisher, basing interest on "impatience," and in accordance with his own recent volume, the writer exhibits the relation between the rate of interest and the prices of instrumental goods and other points of monetary theory. *Messina: come vive*. G. MORTARA. A description of economic conditions in Messina since the earthquake. *La statistica della disoccupazione*. G. MONTEMARTINI. On methods of measuring unemployment.

APRIL, 1913. *Il massimo di Utilità per una collettività in sociologia*. V. PARETO. An attempt to overcome the difficulty of compounding "ophelimities" pertaining to different persons. *Le variazioni periodiche dello sconto*. G. DEL VECCHIO. Referring to Jevons and certain precursors, the writer describes different kinds of monetary tides. *L'annuario Statistico Italiano per il 1912*. G. MONTEMARTINI.

NEW BOOKS.

English

CHAPMAN (S. J.). *Elementary Economics*. London: Longmans, Green. 1918. Pp. x+169. 2s. net.

[This is a very elementary text book, probably intended for schoolboys. Professor Chapman's recent *Outlines of Political Economy* is described as a continuation of it. At the end of each chapter there are questions with hints for solution. To be reviewed.]

HIGGINSON (JOHN HEDLEY). *Tariffs at Work*: An outline of practical tariff administration, with special reference to the United States, and Canada. London: P. S. King. 1918. Pp. xiv+186. 2s. net.

[To be reviewed.]

HOBSON (J. A.). *Gold, Prices and Wages*: with an examination of the Quantity Theory. London: Methuen. 1918. Pp. xi+181. 3s. 6d. net.

[“This work controverts the current doctrine that attributes the sole or principal causation to the increased output of gold.” To be reviewed.]

KELTIE (J. SCOTT), Edited by. *The Statesman's Year-Book*. 1918. London: Macmillan. 1918. Pp. xevi+1452. 10s. 6d. net.

[Fiftieth Year. In this jubilee volume “an attempt has been made in the introductory matter and in the maps to indicate the contrast in certain aspects of the states of the world between fifty years ago and now.”]

MANN (J. E. F.), SIEVERS (N. J.), and COX (R. W. T.). *The Real Democracy*. London: Longmans, Green. 1918. Pp. xi+276. 4s. 6d. net.

[“Three members of the Rota Club, in these its first Essays, have sought to explain and defend the principle of Property.” They oppose the present state of affairs. But they also oppose Collectivism or Socialism, and Syndicalism. To be reviewed.]

MARRIOTT (J. A. R.). *The French Revolution of 1848 in its economic aspect*. Vol. I.: Louis Blanc's *Organisation du Travail*. Vol. II.: Emile Thomas's *Histoire des Ateliers nationaux*. Oxford: The Clarendon Press. 1918. Pp. xcix+284+395.

[The original French texts are here edited with an introduction critical and historical. To be reviewed.]

PEEL (HON. GEORGE). *The Tariff Reformers*. London: Methuen. 1918. Pp. vi+188. 2s. 6d. net.

[An entertaining history of the politics of Tariff Reform from an unfriendly standpoint.]

PENSON (T. H.). *The Economics of Everyday Life*: A first book of economic study. Part I. Cambridge: The University Press. 1918. Pp. xiii+176. 3s. net.

[An elementary text book intended for schoolboys or others who are taking up the subject for the first time. This volume is described as Part I and does not cover the whole subject. To be reviewed.]

COLLINS (E. A.). *Leasehold Enfranchisement*: the case for and against a practical scheme. London: P. S. King. 1918. Pp. 117. 2s. 6d. net.

[“The author's object is to show the serious effect which the present leasehold system has upon the building trade of the entire country.” To be reviewed.]

WEBB (SIDNEY and BEATRICE). *English Local Government: The Story of the King's Highway*. London: Longmans, Green. 1918. Pp. x+279. 7s. 6d. net.

[Reviewed above.]

WITHERS (HARTLEY). *Money-Changing: An Introduction to Foreign Exchange*. London: Smith, Elder. 1913. Pp. viii+188. 5s. net.

[The outcome of lectures lately delivered to members of the Institute of Bankers. To be reviewed.]

American

BLAKELY (LEONARD STOTT). *The Sale of Liquor in the South*. New York: Columbia University Press. 1912. 4to. Pp. 56. 4s.

[*Columbia University Studies*, 127. "The History of the Development of a Normal Social Restraint in Southern Commonwealths."]

CLARK (JOHN BATES) and CLARK (JOHN MAURICE). *The Control of Trusts*. New York: The Macmillan Co. 1912. Pp. ix+202. 4s. 6d. net.

[Rewritten and enlarged by Prof. Clark with the collaboration of his son. To be reviewed.]

CLEVELAND (FREDERICK A.) and POWELL (FRED WILBUR). *Rail-road Finance*. New York: D. Appleton. 1913. Pp. 463. 10s. 6d. net.

[“The purpose of this volume is to describe the methods of financing Railroads in the United States.” To be reviewed.]

COPELAND (MELVIN THOMAS). *The Cotton Manufacturing Industry of the United States*. Cambridge (U.S.A.). Harvard University Press. 1912. Pp. xii+415. \$2.

[*Harvard Economic Studies* VIII. Reviewed above.]

DAVIS (WILLIAM WATSON). *The Civil War and Reconstruction in Florida*. New York: Columbia University Press. 1913. Pp. xxvi+769. 16s.

[*Columbia University Studies*, 131. The effect of the Civil War on a slave-owning State.]

FARNAM (HENRY W.). *The Economic Utilisation of History*. New Haven: Yale University Press. 1913. Pp. viii+220. \$1.25.

[This volume of reprinted essays takes its name from the first. Several of them deal with labour legislation. To be reviewed.]

FORD (JAMES). *Cooperation in New England, Urban and Rural*. New York: Survey Associates. 1913. Pp. xxi+237. \$1.50.

[Published by the Russell Sage Foundation. Reviewed above.]

KLEECK (MARY VAN). *Women in the Bookbinding Trade*. New York: Survey Associates. 1913. Pp. xx+270. \$1.50.

[A publication of the Russell Sage Foundation.]

KOO (VI KYUIN WELLINGTON). *The Status of Aliens in China*. New York: Columbia University Press. (London: P. S. King.) 1912. Pp. 359. 10s.

[By the English Secretary to the President of China. *Columbia University Studies*, 126.]

McCABE (DAVID A.). *The Standard Rate in American Trade Unions*. Baltimore: Johns Hopkins Press. 1912. Pp. 251. \$1.25.

[*Johns Hopkins University Studies in Historical and Political Science*, xxx-ii. To be reviewed.]

OGBURN (WILLIAM F.). *Progress and Uniformity in Child-Labour Legislation*. New York: Columbia University Press. 1912. Pp. 219. 7s.

[*Columbia University Studies*, xlvii in. A comparative study of State legislation on child-labour in the United States.]

ROBINSON (E. V.). *Railroad Taxation in Minnesota: Analysis of the Gross Earnings Tax.* St. Paul, Minnesota. 1912. Pp. 58.

[Reprinted from the third biennial report of the Minnesota Tax Commission. To be reviewed.]

ROBINSON (E. V.). *The Cost of Government in Minnesota.* St. Paul, Minnesota. 1912. Pp. 343.

[Reprinted from the third biennial report of the Minnesota Tax Commission.]

SELIGMAN (EDWIN R. A.). *Essays in Taxation.* Eighth Edition: completely revised and enlarged. New York: The Macmillan Co. 1913. Pp. xi+707. 17s. net.

[This book was originally published in 1895 (reviewed in the *ECONOMIC JOURNAL*, vol. vi, p. 81), but, until the present, subsequent editions have not been substantially revised. The present edition, however, has been much enlarged and considerably rewritten. To be reviewed.]

STREIGHTOFF (FRANK HATCH). *The Distribution of Incomes in the United States.* New York: Columbia University Press. (London: P. S. King.) 1912. Pp. 171. 6s.

[*Columbia University Studies*, 129. To be reviewed.]

WOLFE (F. E.). *Admission to American Trade Unions.* Baltimore: Johns Hopkins Press. 1912. Pp. 181. \$1.

[*Johns Hopkins University Studies in Historical and Political Science*, xxx-iii. To be reviewed.]

WOOD (FREDERICK A.). *The Finances of Vermont.* New York: Columbia University Press, 1913. Pp. 147. 4s.

[*Columbia University Studies*, lii-iii.]

French

BANDEAU (NICHOLAS). *Principes de la Science Morale et Politique sur le luxe et les loix somptuaires, 1767.* Paris: Geuthner. 1912. Pp. xix+32.

[Reprinted in the *Collection des Economistes* with an introduction and analytical table of contents by Professor Dubois.]

ELEWYCK (ERNEST VAN). *La Banque nationale de Belgique: les Théories et les Faits.* Brussels: Librairie Falk fils. 1913. Pp. vii+380+412. 15 fr.

[An elaborate history and account of the Bank's mode of operations, partly designed to repel Socialist charges against the bank. To be reviewed.]

GIDE (CHARLES) and RIST (CHARLES). *Histoire des Doctrines Économiques depuis les Physiocrates jusqu'à nos jours.* Paris: Recueil Sirey. 1913. Pp. xviii+786. 12.50 fr.

[“Deuxième Édition, revue et augmentée.” The first edition of this valuable work was reviewed in the *ECONOMIC JOURNAL*, vol. xix, p. 416. The new edition does not appear to differ very materially from the first.]

MOHEAU (M.). *Recherches et Considérations sur la Population de la France, 1778.* Paris: Geuthner. 1912. Pp. xxx+303.

[Reprinted in the *Collection des Economistes* with an introduction and analytical table of contents by Professor Gonnard.]

PIERSON (N. G.). *Les Revenus de l'État.* Translated into French from the second Dutch edition by Louis Suret. Paris: Giard & Brière. 1913. Pp. 386. 12 fr.

[This is taken from the fourth book of Pierson's *Political Economy*, which has recently appeared in an English translation.]

SELIGMAN (E. R. A.). *L'Impôt sur le Revenu*. Translated into French by William Oualid. Paris: Giard & Brière. 1913. Pp. xii + 842. 15 fr.

WAGNER (A.) and DEITE (H.). *Traité de la Science des Finances : Histoire de l'Impôt depuis l'Antiquité jusqu'à nos jours*. Vol. I. : Depuis l'antiquité jusqu'à 1815. Translated into French by E. Bouché-Leclercq. Vol. II. : Depuis 1815 jusqu'à 1910. Translated into French by Louis Couzinet. Paris: Giard & Brière. 1913. Pp. x + 327 + 371. 24 fr.

[This completes, in five volumes altogether, the French edition of Professor Wagner's *Finanzwissenschaft*. The two volumes, referred to above, have been translated from a recent German edition, which had been brought up to date by the author with the assistance of Dr. Deite.]

German

ADLER (KARL). *Kapitalzins und Preisbewegung*. Munich: Duncker & Humblot. 1913. Pp. vii + 48. 1.20 marks.

[Bohm-Bawerk, the "Productivity" Theory of interest, the relation between the value of the *Produkte* and the *Produktivgüter*, etc.]

PICHT (WERNER). *Toynbee Hall und die Englische Settlement-Bewegung: ein Beitrag zur Geschichte der sozialen Bewegung in England*. Tübingen: J. C. B. Mohr. 1913. Pp. xi + 217. 5 marks.

[*Archiv für Sozialwissenschaft und Sozialpolitik*, ix. To be reviewed.]

SAND (E. W.). *Die Ursachen der Teuerung*. Munich: Duncker & Humblot, 1913. Pp. vi + 58. 1.50 marks.

Italian

BATTISTELLA (C.). *Il concetto di reddito in economia, in finanza nel diritto finanziario*. Rovigo: Tipografia Sociale. 1913.

MASCI (G.). *Il concetto e la definizione del reddito*. Napoli: Piero. 1913.

PALLOTTINO (R.). *I paesi nuovi nel loro procedere economico*. Ancona: Puccini. 1913.

SACK (A.). *The Peasant Land Bank in Russia, 1883-1910*. Moscow. 1911. Pp. xii + 607.

[In Russian.]

SAMADDAR (JOGINDRA NATH). *Elements of Political Economy* (in Bengali).

[With an introduction by Prof. B. N. Sen. Professor Samaddar's book claims to be "the first of its kind in the Bengali language." It is primarily intended for Indian B.A. students. To be reviewed.]

WALLER (G. A.). *The Problem of Social Economy*. The Author: Yungaburra, North Queensland. 1913. Pp. 91.

[Reprinted from the "Tableland Examiner," Atherton, North Queensland. This brochure, on the first principles of economic social organisation, not without reference, however, to recent Australian land legislation, shows considerable ability and power of economic reasoning.]

THE ECONOMIC JOURNAL

SEPTEMBER, 1913

A SUCCESSFUL SOCIAL REFORMER, ERNST ABBE,
1840-1905.

IN *Past and Present* Carlyle describes with great vigour and power the divine mission which the "Captains of Industry" might fulfil in their sphere of work among the "disinherited" of the world. In this special case his usual pessimistic tendencies take an optimistic turn. Carlyle the prophet, the believer in heroes, is sure of the coming of some great reformer, because he trusts in man's equity, truth, and mercy. The picture he draws of such a man bears strong likeness to the noblest German practical social reformer of modern times.

This great man was the late Ernst Abbe, for many years Professor in the University of Jena, a great scholar in natural science, astronomy, and physics, besides being a first-rate mathematician. But he was also the owner of the famous optical works in Jena, and founder of the "Karl Zeiss Institution," an establishment whose principal object is to try to solve the most momentous of all problems—the social one.

Ernst Abbe was born on the 23rd of January, 1810. As the son of a poor spinning overseer in a mill at Eisenach, he had seen the degenerating effect on his father and others of fourteen to sixteen hours of daily toil accompanied by low wages, miserable surroundings, poor food, neglect of family life and education. He said himself, when Fortune was smiling on him and he had become the owner of a prosperous business, that he could not remember his father's worn face and frame and at the same time look on the workmen with the eyes of a capitalist. The boy's uncommon intelligence interested his teachers, and means were found for him to attend the grammar school at Eisenach, preparatory to his being sent to the University. In Jena and Göttingen

he then studied philosophy, mathematics, and astronomy. After taking his degree in 1861, he became a master at the *Physicalischen Verein* in Frankfurt-on-Main for two years, which post he exchanged for that of a University tutor (*Privat Dozent*) in Jena in 1863. He became Professor in 1870, and Director of the Observatory in 1875. Up to manhood his means of subsistence had been very scanty. Private lessons, some scholarships, the solution of prize questions, had helped him on during these years of study and teaching. The sternness of life fixed in him an inherited taste for a simple way of living; luxury in any form was distasteful to him as an enervating foe to hardy manhood.

The year 1866 was the turning point in Abbe's career. Karl Zeiss, a mechanic in Jena, was at that time the University optician. He constructed microscopes in the old mechanical way, scientific principles being unknown to him. In 1866 he felt convinced, however, that mathematical and physical science must come to his aid in order to bring his instruments to such perfection as was then needed for scientific and practical purposes. He asked the young tutor to join his knowledge to Zeiss's own experience, and Ernst Abbe accepted the offer. The man of science now became a practical optician, and his superior knowledge and skill soon gained for the microscopes of the firm the reputation of being the best in the world, a renown upheld to the present day. Scientific researches combined with practical construction had brought about this result, which was completely achieved when, in 1879, with a third assistant, Schott, a young doctor of chemistry, Abbe discovered a process for perfecting the optical glasses of his instruments. Zeiss, Abbe, and Schott founded a technical laboratory for optical glasses, and this workshop took its due share in the work and its successful progress.

In 1875 Karl Zeiss, the owner of the optical works, asked his assistant to become his partner in the business, and Abbe accepted.

Microscopes were not the only instruments to which this creator of the work of the optician as a science turned his attention. The director of the observatory soon became the manufacturer of the incomparable Zeiss telescopes. Photography and photographic projection also awakened his interest. The brilliant epidiascope, micro-photographic apparatus, improved cameras, the tele-objective were fruits of his researches in that sphere. Topographers, architects, engineers make use of Abbe's spectrometer, refractometer, stereoscope, stereo-comparator, and photo-theodolite. The material and construction of the instruments are

of first-rate quality. No wonder that in spite of the high price which the instruments command, the firm has no need to fear competition. The instruments which serve for scientific experiments are not patented, lest the course of progress might be hindered. Abbe did not believe in the infallibility of his own brains, and gladly accepted scientific help from any quarter whatever.

In 1888 the founder of the works, Karl Zeiss, died. His son quitted the business in 1889 after having received his legal share. The German professor thus became the sole proprietor, and his fortune would have been sufficient to permit him to enjoy the leisure which is commonly the accompaniment of wealth. Neither his own nor his family's inclinations, however, lay that way. Their view of life had remained ideal, showing no love for self-aggrandisement and self-absorption, and were permeated with a deep-felt responsibility towards all those in their employ, both officials and workmen, but especially the latter. Abbe's altruistic sentiments took definite form as soon as the opportunity for their exercise presented itself.

The professor, scientist, manufacturer now became a modern social reformer of the most radical kind: not a theorist or visionary like Carlyle, but a man of action, the executer of his own ideas. They had long been pondered over. On the 1st July, 1891, the fruit was ready for plucking. Ernst Abbe, the sole proprietor of the optical works, divested himself of his ownership by incorporating them in the so-called "Karl Zeiss Institution," bestowing on it his fortune of more than £110,000 to carry out the social reforms he had in view. He himself became one of the managing officials of his institution, a servant where he once had been master, submitting henceforth to the statutes as any other ordinary employee did. The Optical Works was now the legal owner, controlled by its own statutes. It is well worth while taking a look into this document of perfect jurisprudence.

The aim was fourfold: Firstly, cultivation and continuation of the various branches of industry carried on in the establishment, consolidation of its pecuniary interests as a means of sustenance for the several thousand persons employed in it and the making it a useful instrument in the service of scientific and practical pursuits. Secondly, the fulfilment of more comprehensive social duties towards officials and workmen than a single owner could guarantee *for the future* when the works would be under his control no longer. Thirdly, arrangements for opening up opportunities for a better education of the working classes, not only of

this establishment, but also of the town and its environs. And last, not least, a liberal subscription to the University funds, especially on behalf of natural science. Abbe, the man of humble parentage, paid the debt he owed to science more than a thousand-fold. Since 1891, above £200,000 has been given to the University of Jena. New chairs have been founded for several branches of natural science, salaries regulated, and many buildings erected for scientific research. The new University buildings could scarcely have been built without the ample assistance of the funds set aside for this purpose. Abbe never forgot, and said so openly, that the success of his methods was due to the combination of science and practice - science being the primary factor.

The form of government of this small community is that of a co-operative society, with a well-educated and intelligent board of managers. Abbe never thought of putting the executive power into the hands of the workmen. Though he was at heart a democrat, and his sympathy was keenest with the poor, he knew too well the high value of mental culture. His idealism had always been tempered by his common sense and experience. No Utopia for him, and therefore no such failure as Ruskin experienced with his St. George's Guild.

The actual control of the works is vested in the "Karl Zeiss Institution." An official of the Government of Weimar is engaged in his leisure hours to superintend the carrying out of the various provisions of the statutes, but has no power given him over the business operations of the works. Abbe never meant to make the firm a lucrative field for speculation and accumulation of riches. Should it ever sink to that level the institution was to be dissolved, the works sold, and the sum total given to the University and other establishments for public welfare.

The administration of the internal affairs is attended to by a board of managers with partly scientific, partly technical, and partly commercial functions. It is really a republic on a small scale. The committee consists of the heads of the various departments. One of its members is chosen as authorised manager of the whole works. The committee appoint the head engineers for every branch of manufacture carried on in the establishment. They superintend the reserve funds and dispose of the surplus according to the statutes. Abbe himself became the first representative trustee. None of the members of the board get a share of the clear profits paid to every other official and workman at the end of the year. Abbe wanted them to be quite independent of personal motives when fixing the percentage, actuated solely by

fairness and justice and guided by the actual state of the funds. Neither are they allowed to increase their incomes by other private occupations. Their salary is never to exceed the tenfold income of an average worker of more than twenty-four years of age who has been employed in the works for at least three years. The salaries of the officials are to depend on the average returns of the business. The fixed wages of a workman twenty-four years of age amount to about £100 a year. Thus the salary of a manager does not exceed the total sum of £1,000. That seems little enough considering the great responsibility laid upon him. Abbe knew well enough, too, that some of these capable business men might prefer a more lucrative post, but the materialistic bent of such minds had no room in a programme which could only be carried out by men who were intellectually and morally of the same cast as the founder. Up to the present his confidence in the integrity of human nature has not been misplaced.

Every branch of the industry is respectively superintended by a body of officials appointed by the directors. The head of each branch is one of the members of the managing board.

So much for the intellectual headship of the firm. The complement to this official organisation is the provision for the lower officials and workmen. This is the work of a real friend of the people, a social act and an exhibition of political economy in its widest sense. Moreover, its chief value lies in the fact that it was not given under any obligation to the workmen as an alms or as the outpouring of generosity and charitable feeling. It was the epitome of justice, the realisation of the rights of the inferior classes to what was due to them not only in the form of decent wages and regulation of working hours, but also of opportunities for recreation and the cultivation of their minds, and of a sufficient income in case of sickness, disablement, accident, and old age. In a word, real democracy was evolved. There should be no obligation on the part of the recipients, they took but what rightly belonged to them, no more, no less.

The relationship between employer and employed was strictly legal. The moral obligation on the part of the workman consisted in doing his work to the best of his ability, and in behaving himself decently to all connected with him in the factory. Independence of thought and action in religious, social, and political matters was fully guaranteed, and tolerance exercised in its widest sense. Compulsory absence from work on account of public duties is not followed by a suspension of payment. Party

interests, the formation of clubs, unions, &c., the competence and election of the board of labourers, are subject to no restriction or interference whatever.

Government is not allowed to contribute to the pensions or to the sick and old age insurance funds, neither do the officials and workmen. This duty devolves solely on the works, which have the benefit of the entire mental and bodily exertions of the workers; hence the provisions made in case of disablement, sickness, and old age are but the returns for what was spent on their behalf. To do full justice to this original scheme of Abbe's, we must look into the details of the legislation of this little community.

The rapid and splendid development of industry and commerce, also of the branch Abbe superintended, is based on a properly *organised division of labour*. At the same time, Abbe realised that the work would become monotonous in course of time to the workman. It is not so interesting nor so full of variety as that performed by the artisan of old. Still, it is impossible to turn back the wheel of time. Therefore the disadvantages and drawbacks of the system must be equalised by a compensation given to those who suffer from its evil consequences. Abbe tried to accomplish this by raising the tone of the workman's private life and improving its moral and intellectual conditions.

When he was asked what had induced him to take this step, his answer was characteristic: "I said to myself when I became the sole owner of the business with several thousand people dependent on me, that it was my duty to bring about such conditions in the work and life of my fellow-workmen as would also permit me, without hurting my pride, to be a simple artisan in these workrooms."

The wages are either at a fixed rate or according to piece-work. The legal minimum wage can never be reduced, only raised. No commercial crisis can lower it. The reserve funds are to be drawn on largely in times of commercial crisis. Losses and damages are not to be laid on shoulders feeble enough even in good times. Wages paid for piece work generally amount to more than the legal minimum. But should it occur that they do not come up to this standard, the legal minimum due to the worker is already settled. In the course of the year the works are closed on twelve days (Easter, Whitsuntide, and Christmas), but wages are not suspended, and every man has a claim to a fortnight's holiday in addition, his pay being continued for half the time.

These wages receive an addition at the end of the year through the distribution of the profits, which on an average have been about eight per cent. No dividends are paid to the creditors who invested their money in the business. They reap their 4 per cent., no more, no less. Those who bring in the harvest are benefited by it. Abbe is not the only manufacturer who grants a share of the clear profits to his workmen. Freese in Berlin, Dr. Schott in Jena, Godin in France do the same; but they bestow it as a personal favour, whereas it is the legal due of "the Zeissianer," as this working staff is called. Carlyle's question whether or not "the master may grant his workers permanent interest in his enterprise and theirs that it really may become a joint enterprise," was answered by a timid and hesitating "Yes" on his part. He knew the difficulties, though he warmly desired such results. Abbe's hearty "Yes" is the fulfilment of Carlyle's faint hopes.

The Scotch theorist and the German practical social reformer were of one mind as to the basis on which all organisation and its success are founded. It is the principle of forming permanent contracts with the workmen instead of temporary ones. An official or workman once engaged and tried for six months cannot be dismissed after this time by the firm unless heavy moral charges are brought against him. If it does happen, the man thrown out of work can take legal proceedings against the firm, and it is for the arbitration courts for trade disputes to decide whether the works shall pay him compensation. The sixth part of the salary or wages paid to him since his entrance into the firm are his due. We see the demands of the Socialists for an Insurance Act for those thrown out of employment are here acceded to voluntarily. The practice of so many masters of taking on labourers when orders press, and unscrupulously dismissing them when no longer needed, cannot be carried on in this establishment. The indemnification in case of dismissal is to be paid out of the reserve funds. Thus the victim is enabled to look out for other employment without enduring misery after his discharge.

Another way was found for alleviating the lot of the working classes by diminishing the working hours. When Abbe first entered the business in 1875 twelve hours were the rule, reduced after a time to nine. When he heard that the English Government had introduced eight hours' daily work in the Woolwich docks without lessening the pay, that, moreover, neither the quantity nor the quality of the work had suffered from this deduction, he gladly adopted this measure in 1900, after having tried

the experiment in his works for a year on workers who were paid by piece work. The labourer being fresher both mentally and physically, the results of the experiment were even better than he had hoped for. Eight hours each for sleep, work, and relaxation have done their best to make the Zeissianer the so-called aristocrat of the working class.

For several years a half holiday was given to all employed by the firm on the 1st of May. It was considered to be a concession made to the many Socialists among Abbe's workmen. He really did it in memory of the 1st of May, 1848, in England, when that Bill was passed which forbade women and children to work longer than ten hours a day in cotton mills, the first step to the "Hours of Labour Bill" that followed for both sexes. In politics Abbe favoured free trade; but man's health had to be protected by legislative enactments.

The third link in the chain of his organisations dealt with insurance for old age, disablement, and death. Neither the State, the officials, nor workmen are allowed to contribute to the reserve funds for these purposes. The business absorbs the strength of the employees who grow old in its service, and it is but just that the paying back of the debt should fall to the share of the firm which has reaped the benefit. State and municipal officials pay no extra premium, why then should those do so who are generally worse off than they? An additional safeguard is the compensation paid in case of arbitrary dismissal, for Abbe called an insurance without this support "a knife without an edge." Seven to nine per cent. of all the salaries and wages paid during the year, therefore, go to the reserve funds to supply present and future needs.

Every official and workman who entered the business before his fortieth year, and who has been employed for five years, is entitled to a pension in case of disablement. Should death intervene part of it is passed on to his family. The sum, if withheld, is recoverable by law. A man is entitled to such a pension from his twentieth year. Abbe caused the pension to be regulated according to the fixed salary or wages paid. After fifteen years of service its rate amounts to 50 per cent., increasing yearly by 1 per cent. up to 75 per cent. after forty years of work, the same as is granted by the State and municipalities to their officials. The pension for old age is based on the same percentage, and is granted to anyone who has been employed in the business for at least thirty years. At the age of sixty-five everyone is entitled to it. In case of a man's death, his widow's annuity for

herself alone consists of two-fifths, with one child of three-fifths, with more than one of four-fifths of the sum which the husband would have got himself.

The organisation of the workmen's sick funds runs on similarly just and generous lines, although a premium has to be paid by the insured too. During the illness of the head of a family or one of its members three-fourths of the fixed wages, but not exceeding five shillings a day, are paid so long as the illness lasts, even if it be for a year or more. The doctor's fee, medicines, or, if need be, treatment in hospital, fall on the sick fund. Women after confinement receive a subsidy of three-fourths of their husband's wages for six weeks. The payment made in case of the death of a workman himself amounts to twenty times the sum of his daily earnings, for the death of his wife it is two-thirds of that sum, and for a child a fixed amount of one pound.

The premium for these insurances is 1 per cent. of the wages not exceeding five shillings a day. Of that sum the firm pays for a single man five-eighths, for a man with a family three-eighths. A bachelor suffers a weekly deduction from his wages of $1\frac{1}{2}$ per cent., a married man of $2\frac{1}{2}$ per cent. The book-keeper is paid by the firm. The administration is in the hands of a committee composed of workmen. The firm only possesses the right of veto should a change of premium, or of the statutes, or the breaking up of the sick fund be planned by the board of workmen.

To avoid illness as much as possible the young working men are periodically examined by doctors, and instruction is given them in hygiene, all at the expense of the firm. The sanitary regulations in the factories are exemplary. Baths may be had gratuitously at any time of day. The half-hour's work missed must be made up for in the course of the week. Alcohol is not permitted during working hours. Milk, mineral waters, &c., are furnished by the firm at cost price.

There are large grounds for football and other sports, whilst part of a wood in the neighbouring mountains is reserved for a pleasure ground.

Abbe abstained from building houses for his workmen. He did not approve of imposing restrictions upon them in private life. But money is readily advanced by the firm to the building society of the town, and hundreds of Zeissianer have their own snug cottages and pretty gardens.

The workmen's interests are looked after by a board of labourers founded by the master in 1896. Its members, above one hundred in number, are elected by ballot of all the workmen

above eighteen years of age. Seven of them chosen from among its members form the officers. They have the right of appealing to the head committee of directors in all internal affairs of the business relating to their welfare, and although the final decision lies with the board of managers, freedom of speech is permitted. Abbe said himself that much good had come from the joint work of both corporations, and the statutes leave the way open to further reform and improvement. Standing still was not on the programme of this man of modern natural science. He believed in evolution in the widest sense of the term. Ruskin's mediævalism sapped the life-blood of the St. George's Guild; Abbe's idealism was rooted in the present state of things, making allowance for future expansions.

The disinterestedness of the donor cannot be questioned. He rejected vehemently all endeavours to bestow worldly honours upon him. He never looked upon his donations as gifts—they were the natural obligations of a higher human equity. He possessed a mind “graduated in Heaven's stern University.” That is the secret of his success. “Humanity always pays best,” says the Scotch political economist. Such is the case here. The works are being extended from year to year, an external proof of their financial success, and the physical, moral, and intellectual condition of the workman bears evidence of his improvement, without mentioning his bettered circumstances pecuniarily.

The portrait of this man of genius would remain imperfect without some mention of the institutions founded by him for shedding fuller light in the intellectual world. The subvention for the University of Jena has already been alluded to. It is so considerable that the *vox populi* has declared Abbe the fifth and greatest supporter of it, the others being the Principalities of Saxe-Weimar, Meiningen, Koburg-Gotha, and Altenburg. Jena can boast of a University equal to the best in Germany. It has, moreover, the reputation of being the stronghold of the utmost liberty in scientific research and instruction, a privilege for which Abbe stipulated, should the subvention be continued. Science subservient to labour, this combination was the banner he carried in forming his social ideas.

Intellectual culture is not to be gained only at the University in Jena. Opportunities for mental improvement are offered to everyone by the most conspicuous of Abbe's gifts—the “People's Hall,” as he termed it. The splendid renaissance building contains reading rooms with more than a hundred newspapers, German and foreign, of the most diverse political tendencies; more than three hundred magazines, pamphlets, and encyclo-

pædias in every branch of science and art, reading rooms for adults being also provided. A well-stocked circulating free library of more than thirty thousand volumes, both in literature and science, is at the disposal of everyone. And the fee? Quiet orderly conduct so as not to disturb other readers—for the use of the library one's signature with any further security. So far this appeal to man's honesty and self-responsibility has proved the best policy. Another wing of the building contains class-rooms for a commercial school, several lecture-rooms, as well as apartments reserved for exhibitions of art. The most beautiful of all is the large music hall capable of holding more than two thousand people. Classical music well performed by choir, orchestra, and first-class soloists edify both mind and soul. This music hall also serves for lectures delivered to a larger audience than the other rooms hold. University vacation courses, political meetings, &c., take place here. . . .

Such is Abbe's last will and testament. He bequeathed philanthropy allied to truth and justice to his own and future generations, after having given palpable proof of its beneficial influence on the working classes during the many years of his arduous labour in Jena.

Abbe had died in 1905. On the 5th of February, 1911, the four princely supporters of Jena University dedicated a bust to his memory. It was placed in the college hall amongst those of princes who had at one time or another been connected with the Alma Mater. His wide circle of friends and admirers paid their debt of gratitude on the 30th of July, 1911. The monument erected in front of his own small house, the works and the People's Hall is a little temple. It encloses the marble bust chiselled by the great German sculptor Klinger. Allegoric reliefs at the base allude to Abbe's scientific and technical significance. Four reliefs in bronze by Meunier on the four sides of the temple illustrate "labour," thus depicting the whole career of the hero.

But gratitude to Abbe can scarce be shown in visible form. It corresponds with his own idea of the matter—to make free and profitable use of all the means offered through his institution in order to acquire a better mode of living, instruction, literary and musical entertainment, higher culture—to get nearer to mankind's real destiny. Emerson's words, "Only that good profits which we can taste with all doors open and which serves all men," expresses a gospel which was not only preached but lived by Ernst Abbe.

[. GLATZER

FINANCE OF RAILWAY NATIONALISATION IN GREAT BRITAIN.

WHEN such a writer as Mr. Acworth, a distinguished authority on railways, who is himself unfavourable to their purchase by the State, declares nationalisation inevitable, it is time to discuss the probable consequences of such a change. It would involve the largest financial transaction ever carried out; theory should throw some little light on the future of the thousand millions sterling involved, and even faint illumination is worth seeking in such a case.

The transaction would consist essentially in exchanging Government stock for the existing railway debentures and stock. The ordinary shareholders would have to be bought out completely, for they could not be left with any share in the business unless they shared the control to some extent. Hence there would be no reason for the issue of more than one kind of security in exchange for debentures, preference, and ordinary stock. The first question is as to the amount.

Debentures.—The security of British railway debentures can hardly be improved even by the guarantee of the British Government, so the Government could not do less than guarantee to the holders their present income. The same may be said, practically, of the “guaranteed” stocks. The nominal total of debenture and guaranteed stocks is about £470,000,000: there is a great quantity at $2\frac{1}{2}$ and 3 per cent. which is below par, and only a little at high rates, quoted above par. Hence the market value is only about £400,000,000, and the yield about 3·85 per cent., or £15,400,000 a year. This the Government would have to take over.

The *preference stocks* of the leading railways are nearly as good as the debentures, *e.g.*, L. and N.W. yields 3·88 per cent., G.W. 3·97 per cent., G.N. and Midland 4·00 per cent. The nominal total is given as £350,000,000, the market value is a little under £300,000,000. It is possible that the owners might

consent to a slight reduction of income in exchange for a Government guarantee that would increase slightly the market value of their stock. We may suppose the interest charge of about £11,600,000 reduced to, say, £11,000,000: though it is doubtful whether the owners would think it a good exchange.

As to the *ordinary shares*, their value is so variable that it would probably be better to deal with the companies rather than the shareholders, and allot each company a certain amount of British Government railway stock, and leave the company to distribute this among its shareholders. The amount of stock might be based upon the average profits for a few years past; thus, in 1910 the balance after paying debenture and preference interest sufficed to pay 3·48 per cent. on a nominal capital of £492,000,000 or £17 100,000. At how many years' purchase should this be capitalised? The most important ordinary stocks yield, at present, round about 5 per cent., which is equivalent to twenty years' purchase, but this does not include shares in companies which are gradually working up to a better financial position, such as South Eastern deferred, Great Central ordinary, &c. As the Government would be buying out the prospects as well as the immediate dividends of the shareholder, the price could hardly be put at less than twenty-two years, if the matter rested only on general principles of equity.

But there is an Act of Parliament (7 & 8 Vict., Ch. 85, 1844) which practically guarantees the railways twenty-five years' purchase of the "divisible profits estimated on the average of the three next preceding years," should the Government take over the lines constructed after the date of the Act. As there is no right of purchase of the earlier railways (which include important main lines) there can be no doubt but that the Government would have to give at least equally good terms for these. "Divisible profits" would probably be taken to mean something more than the dividends actually paid, so that twenty-five times £17,100,000 or £427,500,000 is rather an under-estimate of the price. If we add 5 per cent. we should perhaps get about the figure that an arbitrator would adopt.

Government Stock.—It is out of the question to issue this at anything like the present price of Consols. The leading stocks give (April, 1913) the following yields:—

Consols	... 2½ at 73¾	... 3·30 per cent.
Local Loans	... 3 at 85	... 3·53
Irish Land	... 2½ at 73¾	... 3·72

The first is being redeemed steadily, the last is being issued, and

there is accordingly a marked difference between them. If Government were to issue vast quantities of new stock it could not expect a better price than is paid for Irish land stock, especially as it would have to be taken by railway debenture holders who are used to getting $3\frac{3}{4}$ to 4 per cent. with perfect security. If the nominal rate of interest were chosen so that the price would be near par, and that is probably the wisest plan, it would have to be $3\frac{3}{4}$ per cent. Assuming this, for the moment, we require :—

For ordinary shares, say . . .	£446,000,000 at par.
For prior charges	£704,000,000 to yield the annuities stated.
<hr/>	
Total	£1,150,000,000

If a lower nominal rate of interest were adopted nothing would be gained; and, moreover, the market would hardly accept any stock without a guarantee against conversion for some time to come; the present debenture holders have, in many cases, a practical guarantee of this kind in the fact that their stock is much below par, and in other cases it is irredeemable. We will assume for the sake of argument that the new stock is made irredeemable for twenty years.

Sinking Fund.—Next, the question of amortisation. Whatever may be the policy of the companies, it would not be wise on the part of the Government to assume that railways are going to retain their value for ever. Like other inventions, they are at the mercy of new inventions: the only permanent value lies in the freehold—the wayleaves. As the land was acquired at an excessive price, its value is only a small part of the present capital of the railways; and even as wayleaves, railway ground has to face unknown future competition from the roads, and the air. For these reasons it seems indispensable to provide a small sinking fund, say $\frac{1}{4}$ per cent., which would redeem the stock in about eighty years.

If the above estimates may be taken as roughly correct, the Government would have to undertake the issue of at least £1,150,000,000 of stock bearing $3\frac{3}{4}$ interest and $\frac{1}{4}$ sinking fund charge, and inconvertible for twenty years. The total charge would be £16,000,000 a year. This is nearly equal to the present net profits of the railways; as was, of course, to be expected. Rhetorical exaggeration as to the saving due to national credit is common: but on any careful study it is clear that there could be no great immediate saving except by confiscation. It is to be noted that "watering" of capital by the companies in the past

has no bearing on the calculation, which is based only on the actual yield of the railways at the present time.

The fact that there would be no immediate surplus of any magnitude would be a very strong barrier against a policy of rate reduction or a policy of improved treatment of employees, and would therefore disappoint those most concerned to push nationalisation. This, however, leads to questions outside the scope of the present paper.

What we are concerned with is whether the purchase is likely to be a good one at the price. That depends partly, of course, on the changes in business -on the real progress of Britain, but also, in a more calculable way, on monetary changes, *i.e.*, on the course of (i) prices, (ii) the rate of interest.

The level of prices does not directly affect the transfer, but it would affect the amortisation, if, as suggested here, the Government decided to carry that out. Thus, supposing prices were to go on rising for a long time, the repayment of debt would be made in currency of less value than that of the present day, and the nation would accordingly be receiving a bonus on its purchase; and, conversely, if prices should fall again. This effect, however, even if it could be foreseen, would be unimportant, as the cost of repayment (by a $\frac{1}{4}$ per cent. sinking fund) is only one-fifteenth of the cost of interest.

The financial success or failure of railway nationalisation depends chiefly on the course of the rate of interest, as this affects both earnings and expenses. But before discussing the way in which these are affected, one must recall briefly the causes of variation in rate of interest. The most important of these are the degree of security offered by the borrower, the rise and fall of prices, and the demand for loans as compared with the supply of loanable capital.¹ A rise in interest due to the last of these causes means that trade is really prosperous over the world generally, so that owners of capital are able to get a larger return for it: but if there were a rise due to insecurity it would be quite another thing; while a rise due to depreciation of money (*i.e.*, rise in prices) produces profits that are partly fictitious.

Accordingly, if, after the railways had been bought, the market rate of interest were to rise on account of increased demand for capital, the general prosperity that this indicated would be shared, to a greater or smaller extent, by the railways: their profits would grow, whilst there need be no great increase in expenses, as materials would not be dearer, and though wages would probably

¹ Lehfeldt, *ECONOMIC JOURNAL*, March, 1912.

rise, they should not absorb all the increased receipts. In this case, then, the Government would have made a good bargain, like anyone who buys a business that afterwards improves. But if the rate of interest (due to general trade activity) fell, these results would be reversed. In the case of a company such fluctuations are borne by the proprietors of the ordinary shares. Now a Government railway is financed entirely by bonds, so that its net revenue is particularly sensitive to changes.

If the market rate of interest rose, not because capital was more actively demanded to promote new enterprises all over the world, but merely because of the depreciation of gold, working expenses would be increased, as stores would become more expensive, and the rising cost of living would give employees a strong claim to increased wages that could not be resisted. Hence the gain in railway traffics would be partly neutralised; but still, as the capital of the railway would bear a fixed rate of interest, there would be some margin of profit to the Government, which would really be gaining at the expense of the bondholders. In the opposite event, if gold were to appreciate, the rate of interest would for that reason fall, and bondholders would gain at the expense of the Government, which would be embarrassed by falling traffics. It is, indeed, well known now that periods of falling prices are favourable to bondholders, and those of rising prices to shareholders.

It is not high prices but rising prices that make the rate of interest high; as prices are rising now, and have been so for more than a decade, it would take not merely a continuation of the rise but an acceleration of it to raise the rate of interest further. On the other hand, it does not need a fall in prices to reduce the rate of interest; if prices merely became stationary that effect would be produced. Hence one can hardly avoid the conclusion that a further rise in interest due to this cause is unlikely. Professor Irving Fisher has lately attempted to forecast the future of prices,¹ and gives weighty reasons for thinking that the rise will continue, but even he hardly goes to the extreme of predicting a faster rate of rise than has taken place in the last few years.

It is hardly possible to forecast the true demand for capital and its effect on the "normal" rate of interest—freed from the influ-

¹ Fisher, *American Economic Review*, September, 1912. This important article lays stress on the development in the use of cheques as the chief influence causing prices to rise. Prof. Fisher has done a service in bringing this influence forward prominently, though some of his conclusions appear to be overstated.

ence of price changes. The demand for capital to open up new countries is extraordinarily large at present, and outruns the saving power of England and France—the only countries that have much to spare. It has been observed by several writers, among them Mr. Hobson,¹ that an exceptional amount of capital is being put into enterprises, such as railways, in new countries, which do not yield much return now, but will increase vastly the production of raw materials later; and this makes the “normal” rate of interest high at present. One can only remark that a falling off is, at least, not unlikely. On the whole, it looks as if these two main influences—the demand for capital and the value of gold—would be likely to act in a sense unfavourable to the purchasing Government. At first sight it might seem as if a time like the present when debentures and other securities at fixed interest are quoted low, is a good time for the Government to purchase, but the above considerations show that it is not.

The main influences just discussed might act in either sense, according to the course of history. But there are others of a one-sided character. One of these lies in the terms of redemption of a loan. Some loans, *e.g.*, Consols, may be repaid by the Government at par at any time (after 1923); but the holders have no right to claim redemption. This one-sidedness tells, of course, in favour of the Government, and has come about because Governments, being longer-lived, have taken more care about the distant future than most individuals. But credit of this sort has come into disfavour in the market, which now prefers a bond falling due on a fixed date. If the railway debt were to be paid off, as suggested above, the most favourable terms the British Government would be likely to claim would be those of “20–80 bonds”; *i.e.*, bonds falling due in eighty years, but with the option of redeeming after twenty. If the bonds were issued at about par this might possibly result in an improvement in the Government’s bargain after twenty years, but, of course, it could make no immediate difference.

Another one-sided influence arises from the gradual gain in security shown by foreign investments. At present the yield of foreign bonds exceeds that of English ones by an amount that is not justified by the greater security of the latter;² it is partly a matter of fashion and sentiment that keeps Consols at the unreasonably high quotation of $\frac{1}{4}$ or thereabouts.³ With the gradual

¹ *Gold, Prices, and Wages*. (London, 1913.)

² Lehfeldt, *Journal of Statistical Society*, January, 1913.

³ The greater marketability of Consols is one cause of their high price: but the yield of the small issue of new $2\frac{1}{2}$ per cent. stock (red. 1905) only exceeds that of

disappearance of these non-economic influences it is to be expected that foreign investments will rise in value, and home ones—including railway debentures—will fall. Hence, even if there were to be a general fall in the rate of interest, the consequent rise in the price of securities would be checked in the case of those of the British Government, and it might not be able to take advantage of its right of redemption.

So far as one can look into the future, there seems to be almost nothing to encourage the view that railway nationalisation would be a good bargain financially. By this I do not mean that a wealthy and progressive nation like England cannot nationalise its railways if it chooses, and make them succeed. For there is always one influence in the background which, no doubt, is at the bottom of the sanguine reformer's mind: it is that the "market" never fully discounts future progress. So long as Britain continues to grow in population and prosperity, the general increase in wealth will add to the value of railways, and in the long run the purchaser, at any reasonable price, will find them worth more than he paid. But the believers in nationalisation are not content with this far-distant prospect. They look for one of three things: (a) a large subsidy to the national revenue, as in Prussia, or (b) cheaper rates than the companies offer, or (c) very favourable terms of employment for the railway workers, and they look for it to come soon, if not at once. There does not seem to be the slightest chance that their hope will be fulfilled.

R. A. LEHFELDT

JOHANNESBURG,
April, 1913.

Statistical Note.—The statistics of English railways are notoriously unsatisfactory, especially as to the volume of goods traffic. The following figures are simply taken from the official reports, without criticism:—

UNITED KINGDOM.

		Gross receipts.	Passengers (millions).	Goods (million tons).	Expenses.
1880	.. ..	63.0	604	235	33.6
1885	... ..	66.6	697	257	36.8
1890	... ..	76.5	818	303	43.2
1895	.. ...	81.4	930	334	47.9
1900	... ..	98.9	1,142	425	61.7
1905	... ..	105.1	1,199	461	70.0
1910	... ..	111.2	1,307	514	76.6

Consols by 0.12 per cent., so although the Government railway stock would possess the advantage of being the largest single issue in the world, it hardly seems likely that less than 3½ per cent. would satisfy bond-holders, in view of the fact that the issue would treble the amount of British Government Stock on the market.

In index numbers (1895 taken as 100) :—

	Gross Receipts.	Passen- gers.	Goods.	Total traffic. ¹	Receipts per unit of traffic.	Ex- penses.	Expenses per unit of traffic.
1880 ..	77	65	70	68	113	70	102
1885 ...	82	75	77	76	108	77	101
1890 ...	94	88	91	90	104	90	100
1895 ..	100	100	100	100	100	100	100
1900 ...	121	123	127	126	96	135	107
1905 ...	129	129	138	135	96	146	108
1910 ..	140	141	154	150	*94	160	107

¹ Weighting : Goods, two ; Passengers, one.

The columns of receipts and expenses per unit of traffic show clearly that during the period of falling prices receipts fell while expenses remained stationary, and during the period of rising prices receipts remained more nearly stationary, while expenses, though somewhat checked by the strenuous efforts of the companies, rose ; further, that, as assumed in the text, the variation in receipts is much greater than that in expenses.

PRICE VARIATIONS IN NEW ZEALAND.

THE purpose of these investigations is to ascertain the nature and extent of price variations in New Zealand, their connection with similar variations in other countries, and their influence upon the commercial and social life of the Dominion. The method adopted is the well-known one of the index-number; the base period is the decade 1890-1899, and its index-number is 100. From forty to sixty commodities have been included--new commodities being added as reliable data become available. Raw products stand to manufactured goods in the ratio of 2 : 5, and imported goods to local products in the ratio of 3 : 5. The lack of trade journals makes impossible the inclusion of such important commodities as clothing.

The following commodities have been included :--

I. *New Zealand Products*.--Wheat, flour, oats, oatmeal, barley, chaff, potatoes, hemp, wool (2), mutton, lamb, beef, bacon, butter, cheese, tallow, hides, timber (3), sugar, soap, hops.

II. *Imported Goods*.--Iron (2), beer, whisky, brandy, port, tea, coffee, cocoa, lead, zinc, steel, coal, fencing wire, cement, white lead, red lead, currants, rice, sago, tapioca, sultanas, salt, vinegar, salmon, kerosene, turpentine, castor oil, linseed oil, matches, candles, tobacco, soda carbonate.

From 1860 to 1908 the average annual price was obtained by taking the arithmetic mean of four prices observed quarterly. Since 1908 prices have been observed every three weeks and the arithmetic mean thereof calculated.

The following brief summary of the social and commercial history of New Zealand should serve to make the appended tables more intelligible.

I.—HISTORICAL.

New Zealand lies at the antipodes of the great commercial nations of the world. In area it is but little inferior to the United Kingdom; in population, however, it is surpassed by more than

one city in the Empire. In spite of its equable climate, its natural fertility, and its varied resources, no strong tide of immigration has ever set towards its shores. Though discovered as early as 1642 by Tasman, and rediscovered in 1769 by Cook, no settlement took place until the nineteenth century. It was not till 1833 that a British Resident was appointed, and not till 1840 that the British Flag was hoisted and the Maoris (natives) ceded sovereignty to Britain. At that date there were in the Colony not more than 100,000 Maoris and 2,000 whites. The two main islands were not connected by cable till 1863, and it was not till 1876 that cable communication was obtained with England. Prior to that news arrived from Europe ten times a year, and was at least four months old.

The growth of the population is exhibited in the following table. The Maoris, who now number about 15,000, are excluded from all calculations.

1840	.. . . .	2,000	or	·02	to the sq. mile.
1860	.....	80,000	"	8	" "
1870	.. . . .	218,000	"	2·4	" "
1880	.. . . .	485,000	"	4·6	" "
1890	.. . . .	626,000	"	6·0	" "
1900	.. . . .	768,000	"	7·3	" "
1912	.. . . .	1,040,000	"	10·0	" "

There has been no great concentration of population in the cities. Slightly more than half the population is in urban areas; the largest city--Auckland--contains about 106,000 people, or 10 per cent. of the whole. There are three other cities not much smaller.

The climate is very mild; snow is unknown over 50 per cent. of the country. The soil yields abundant crops of wheat, oats, barley, and rye in the cooler parts, and of maize in the more northerly. Root-crops flourish everywhere, and the pasture grasses of Britain grow equally well in the Dominion. Thus the country is the ideal home of a farming community. The forest wealth, too, is considerable, but, unfortunately, fast diminishing, though the State has recently inaugurated a laudable but scarcely generous scheme of afforestation. Timber is already imported in large quantities; our timber exports consist only of fancy timbers, or others peculiarly adapted for certain purposes. The swamps produce large quantities of hemp (*Phormium tenax*) which commands at times a ready market. In the northern parts of the Dominion large quantities of gum have been dug from the ground, the product of Kauri forests that disappeared centuries ago. The country contains a great variety of minerals; but with the exception of gold and coal these have been almost wholly

neglected. Of coal we produce many varieties, from the finest steam coal to the poorest lignites. Though the production of gold is steadily diminishing, it is probable that but for its former presence in rich deposits easily accessible the population of New Zealand would not have been half what it is to-day. Large and rich deposits of iron-ore occur, but owing to its refractory nature and the insignificant population its successful treatment has not yet been undertaken. Of much greater promise is the oil industry: boring has revealed the presence of large oilfields, and refineries are now being erected.

The following table shows the growth of our export trade and its principal constituent items:—

Exports.

	£	or	£	
1860	549,000		6.9	per head.
1870	4,545,000	„	18.3	„
1880	6,102,000	„	12.6	„
1890	9,429,000	„	15.0	„
1900	13,055,000	„	17.0	„
1912	20,000,000	„	19.2	„

An export trade in 1911 of £18,492,000 contained the following*:-

	£
Wool	6,492,000
Meat	3,505,000
Dairy produce	2,770,000
Gold	1,815,000
Kauri gum	326,000
Grain	330,000

In brief, 70 per cent. of our exports are animal products

II.—PRICES.

(*Note.*—To give more point to the tables, I have instituted a comparison between prices in New Zealand and prices in England according to Sauerbeck. But as his numbers are calculated on a different basis, I have reduced them to the same base as mine. Thus, Sauerbeck's average annual index-number for my base period (1890-1899) is 66. I have made this sixty-six 100, and have reduced all his other index-numbers to percentages of this 100.)

Year.	N.Z.	England.	Year.	N.Z.	England
1861	184	149	1887	103	103
1862	187	153	1888	103	106
1863	198	156	1889	111	109
1864	195	159	1890	107	109
1865	189	153	1891	108	109
1866	200	155	1892	104	103
1867	187	152	1893	100	96
1868	184	150	1894	98	96
1869	164	149	1895	93	94
1870	154	146	1896	96	92
1871	150	152	1897	97	94
1872	154	165	1898	97	94
1873	161	168	1899	98	103
1874	161	165	1900	101	114
1875	148	146	1901	98	106
1876	140	144	1902	100	105
1877	144	112	1903	100	105
1878	135	132	1904	96	106
1879	127	126	1905	99	109
1880	130	133	1906	101	116
1881	125	129	1907	107	121
1882	123	127	1908	105	111
1883	118	124	1909	103	112
1884	115	115	1910	109	118
1885	111	109	1911	112	121
1886	108	105	1912	116	129

If we eliminate the abrupt fluctuations due to exceptional and temporary causes, and average the index-numbers over ten-year periods, we get the following results :—

Decade.	N.Z.	England.	Decade.	N.Z.	England
1861—1870	184	152	1883—1892	109	109
1862—1871	180	153	1884—1893	107	106
1863—1872	178	154	1885—1894	105	105
1864—1873	174	155	1886—1895	104	103
1865—1874	171	155	1887—1896	102	102
1866—1875	167	154	1888—1897	102	101
1867—1876	161	153	1889—1898	101	100
1868—1877	156	152	1890—1899	100	100
1869—1878	151	150	1891—1900	99	100
1870—1879	148	143	1892—1901	98	99
1871—1880	145	146	1893—1902	98	99
1872—1881	143	144	1894—1903	98	101
1873—1882	140	140	1895—1904	98	102
1874—1883	135	136	1896—1905	98	104
1875—1884	130	132	1897—1906	99	105
1876—1885	127	128	1898—1907	100	108
1877—1886	124	121	1899—1908	101	100
1878—1887	119	120	1900—1909	101	111
1879—1888	116	118	1901—1910	102	111
1880—1889	115	116	1902—1911	103	112
1881—1890	112	114	1903—1912	105	113
1882—1891	111	112			

From the foregoing tables it will be seen that a heavy and almost continuous decline in prices occurred between 1865 and 1895. From 1895 the movement has been, on the whole, upwards; very gradual and hesitating at first, but rapidly accelerating in recent years. In both countries the decade of the

“'seventies” was one of somewhat violent fluctuations, but by the end of that period the course of prices was indubitably downward. During the “'eighties” the English and New Zealand tables show a remarkable coincidence, English prices falling 23 per cent. between 1880 and 1887, and New Zealand prices 22 per cent. Then followed two years of rising prices in both countries; but this check was merely temporary, prices not touching their lowest till 1895 or 1896. A period of comparatively stable prices, with slightly upward tendency, then supervened. During the South African War the level was abruptly raised, but a reaction quickly set in, though not for long. The rapidly increasing output of gold and the expansion of credit had the same effect in both hemispheres, but Sauerbeck's figures show a much greater appreciation than mine. This discrepancy is probably due in great measure to the inclusion by Sauerbeck of a greater ratio of raw materials, for in New Zealand, at least, the most marked feature of the present decade has been the remarkable rise in raw materials.

TABLE III.

Year.	Raw Materials.	Manufactured Goods.
1890--1899 .	100	100
1905	109	94
1910	130	99
1911	180	103
1912	135	109

This table illustrates equally well the rapid rise now taking place in manufactured goods, due partly to a general depreciation of money, partly to the rise in raw materials, and partly, maybe, to a relative lack of progress in the invention of manufacturing processes.

This relative increase in the cost of manufactured goods is of great importance to New Zealand since it foreshadows, other things being equal, a gradual *per capita* decrease in our purchasing power. For we are not a manufacturing nation. Such manufacturing industries as we possess are endured and protected only as infants that have a fair prospect of attaining an independent maturity. Our industrial progress of the last ten years is not encouraging. We lack the requisite labour—in quality no less than in quantity; and those huge aggregations of capital which permit of cheapened production will be strangers to us for many years to come. But with raw materials rising faster than manufactured goods; or, better still, with raw materials rising and manufactured goods falling, New Zealand's purchasing power has

tended to increase with every unit of increased production of raw materials.

The following table shows how the prices of local and imported goods varied; the former being almost wholly raw materials, and the latter exclusively manufactured goods. In parallel columns I have appended index-numbers of the Bankruptcy and Marriage rates, probably two fairly reliable indices of a country's commercial stability and consequent social contentment. Though in the compilation of the accompanying table no account has been taken of such factors as the changes in production per head, changes in the marriageable state of the population, &c., yet it presents two strongly marked features: the remarkable decline in our prosperity when local commodities fell in a greater degree than imported goods; and secondly, the equally remarkable rise in our purchasing power when local products rose relatively to imported goods.

Decade.	Local Goods.	Imported Goods.	Marriage.	Bankruptcy.
1870—1879	142	150	117	284
1871—1880	142	146	116	284
1872—1881	142	143	116	297
1873—1882	142	139	116	312
1874—1883	139	134	115	333
1875—1884	134	129	113	338
1876—1885	129	126	110	342
1877—1886	126	123	107	347
1878—1887	121	119	105	336
1879—1888	116	116	102	323
1880—1889	114	115	100	285
1881—1890	111	113	99	258
1882—1891	109	111	98	231
1883—1892	107	110	97	206
1884—1893	105	108	96	175
1885—1894	103	106	95	167
1886—1895	102	104	94	154
1887—1896	101	103	95	137
1888—1897	101	102	97	122
1889—1898	101	101	98	110
1890—1899	100	100	100	100
1891—1900	100	99	102	92
1892—1901	100	98	105	83
1893—1902	101	97	108	76
1894—1903	103	96	111	69
1895—1904	105	95	114	60
1896—1905	107	94	118	55
1897—1906	110	94	120	53
1898—1907	112	94	124	50
1899—1908	115	94	127	49
1900—1909	117	94	128	49
1901—1910	120	93	129	49
1902—1911	122	94	131	51
1903—1912	124	95	—	—

Thus we may conclude: first, that variations in the price-level in New Zealand are due only partially to causes purely local, but since they coincide remarkably with variations in the price-

level of other countries, notably of England, Canada, and U.S.A., they must be due in great degree to causes of world-wide operation; and secondly, that while a period of falling prices of goods of local production spells commercial instability and social gloom, a long-continued period of rising prices of such products means exceptional commercial stability and social enthusiasm.

J. W. McILRAITH

Auckland, N.Z.

THE FEEDING AND MEDICAL TREATMENT OF SCHOOL CHILDREN.

THE Education (Provision of Meals) Act of 1906 and the Education (Administrative Provisions) Act of 1907 allowed local education authorities, under certain circumstances to provide free meals and free medical treatment for elementary school children. Local education authorities had some powers with regard to medical treatment before 1907. But these two Acts may be regarded as giving them the opportunity of undertaking two new services which differed widely from those which had up to that time formed their main work. The most noticeable feature about these Acts is that they enable an authority, which is not a Poor Law authority, to administer relief in the shape of free meals and free medical treatment, and to meet the cost of these services out of the rates. In this respect, however, these measures do not stand alone. During the last ten years a number of Acts have been passed, some of which remove the administration of existing forms of relief from the hands of the guardians and give it over to different executive bodies, while others recognise new forms of relief and set up new authorities to deal with them. Up to the year 1905 the guardians were responsible for nearly all relief. In that year the Unemployed Workmen's Act set up a new authority which dealt with the able-bodied unemployed and gave it power to raise a rate. In addition to the two measures with which this article is concerned, the Old Age Pensions Act of 1908 and the Insurance Act of 1911 have also been passed. All these measures are closely related, with the exception of the Insurance Act, which stands somewhat apart; but owing to certain features that it possesses in common with the others, mention may be made of it here.

The driving force which has led to the passing of these Acts has not been obedience to any theory, but the desire to find a remedy for certain definite evils. Public attention has been directed to the problems of poverty during these last few years;

and from time to time some particular evil which is attributed to poverty comes up for discussion. At one time it was the under-feeding of school children that was brought into prominence by the reports from the Johanna Street School in South London, at another time the inability of the poor to provide for themselves in their old age. Any discussion convinces many people that something should be done immediately. When the matter comes to be considered in Parliament it often appears that only one method of treatment is available if any remedy is to be applied at once; this remedy is the simple one of providing free of cost that which is lacking—as, for example, meals and old age pensions in the two instances given above. In late years Parliament has shown itself willing to adopt methods of this kind, and when it does so, further provides that these services shall not be administered by the guardians, in order that those who benefit need not be subjected to the odium which attaches to relief so given.

There can be no doubt that pressure will be put upon Parliament to extend this form of relief. There is already a strong movement in favour of the extension of the provision of meals and medical treatment. It is the object of this article to discuss this method of relief outside the Poor Law, with particular reference to these two cases. In the light of the experience that we already possess it should be possible to form some definite opinion with regard to the success or otherwise of these two Acts, and of the desirability of extending their scope. It will be necessary in the first place, however, to sketch the provisions of these Acts and the manner in which they have worked.

The provision of meals at the public expense was preceded by a period during which meals were provided by charitable agencies. It would seem that children were first fed on a large scale about 1875, when Mr. G. R. Sims raised a fund by means of the *Referee* newspaper. Other agencies sprang up not only in London but also in the provinces. It was soon suggested that feeding should be undertaken by the education authority, and in 1899 the London School Board passed a resolution in favour of this suggestion. In 1904 the question was again brought into notice by the Johanna Street School inquiry, and in 1905 the first step was taken to provide a remedy other than by means of the ordinary Poor Law machinery; this attempt took the shape of the Relief (School Childrens) Order of 1905. This Order empowered the guardians to grant relief to the child of any able-bodied man, without requiring him to enter the workhouse or

to perform the out-door labour test, upon application of the local education authority or one of its officers. It applied, however, only to children who were residing with their fathers, and exempted those children who were blind, deaf or dumb, or whose father was for any reason absent. The Order was for all practical purposes a dead letter.

The following year saw the passage into law of the Provision of Meals Bill. It is an adoptive Act, and empowers a local education authority to give meals to such children as "are unable by reason of lack of food to take full advantage of the education provided for them"; the cost must not exceed that sum which can be raised by a halfpenny rate. The cost of the meals is to be recovered from the parents as a civil debt, except in those cases in which the local education authority is satisfied "that the parent is unable by reason of circumstances other than his own default to pay the amount"; in no case is the parent to be disenfranchised.

Such are the main provisions of the Act. The latest facts with regard to its working are to be found in the Report for 1911 of the Chief Medical Officer of Health of the Board of Education. The Act has been put in force by 116 local education authorities, or, in other words, by rather more than a third of the whole number. The total cost to the rates was slightly more than £145,000, of which about £88,000 was spent in London. The total number of meals provided was over sixteen millions; the number of children fed is not given for all districts.¹ It is interesting to note that the parents' contributions, including the money recovered summarily, only amount to £1,507, while voluntary contributions only amount to £2,796. The explanation of this is, on the one hand, that practically no attempt has been made to recover the cost, and, on the other, that voluntary contributions cease when money is forthcoming from the rates. There is another point of importance upon which the report throws light. From the wording of the Act it would seem that its authors intended that those children who were fed should be selected by a physical test. It appears, however, that as a matter of fact in the large majority of cases it is the income of the parent which is taken as a guide.

Turning now to the Act of 1907, there is little that is definite to record as to the provisions for free medical treatment which were made by charitable agencies before that date. To a certain

¹ Even where numbers are given, they are not of much value. In London, for example, a glass of milk taken when the child comes to school and a two-course dinner in the middle of the day are counted alike as one meal.

extent such treatment was provided by hospitals; agencies were in existence which gave spectacles free of cost or at reduced prices, invalid children were sent into the country, and so on. The Act referred to above, while it imposed medical inspection upon local education authorities as a duty, merely empowered them "to make such arrangements as may be sanctioned by the Board of Education for attending to the health and physical condition of children educated in public elementary schools." It permits them, in other words, to provide free medical treatment in such forms as may be sanctioned by the Board. As in the case of the provision of meals, so also in this case, only a certain number of authorities have availed themselves of these powers. In those instances in which this has been done, not only does the extent to which medical treatment has been undertaken vary from place to place, but so also does the extent to which it is free. The Chief Medical Officer enumerates five principal ways in which action has been taken: (1) Employment of school nurses. (2) Provision of spectacles. (3) Treatment of ringworm. (4) Contribution to hospitals. (5) Establishment of dental clinics. There do not seem to be any figures available to show the cost of these undertakings throughout England.

We have sketched very briefly the powers given to local authorities under these Acts, and the extent to which they have been used. Both measures are clearly tentative and experimental. The method at present in use is half-way between that of a deterrent Poor Law and of what we may call free universal provision. For, on the one hand, there is no trace of deterrence or of "less eligible" conditions; while, on the other hand, the relief is limited to those children whose parents cannot pay for what is provided.

We have described the object of this article as an attempt to discover whether relief outside the Poor Law is ever justified, and, if so, whether it is justified in these two cases. Up to the present the word relief has been used in so vague a sense that it might cover the free provision of anything that was either necessary or desirable. We must try to define the term before proceeding further. Relief, as used in what follows, does not mean any form of free provision, but only such forms as have been instituted with the object of benefiting a class of people so poor that they are unable to live up to a minimum standard of comfort. Public highways, parks and libraries are, for example, excluded; for they do not owe their existence primarily to a desire to benefit the poorest classes, but to the fact that the

whole community needs them, and that a system of free provision is the best method of obtaining them. We exclude, in short, those forms of free provision which we can well imagine that any community would set up even though it had no problem of poverty such as we have.

The Poor Law, the oldest and until lately the only source of relief, was originally due to a general conviction that no member of the community should be allowed to starve. The Poor Law, in fact, recognised a minimum standard below which no one should fall. This minimum standard is now known as the "poverty line." No two people, it is true, agree as to where the line should be drawn; but it is generally admitted that, however low it is placed, a considerable section of the community fail to reach it. What the Poor Law set out in effect to do, and still does, is simply to make up the deficiency in the income of those who fall markedly below the standard. The deficiency is made up either directly in money, or by means of the provision of some service which can be as a rule easily calculated in terms of money. Those who were responsible for the institution of the Poor Law never regarded it as a permanently satisfactory solution of the problem of poverty; they looked to social re-adjustments which should place everyone in a position some day in the future to do without its assistance. In the meantime the relief was unfortunately a necessary expedient.

Experience of the working of the unreformed Poor Law taught one a very important lesson; it showed that a system of relief without any trace of deterrence or "less eligible" conditions tends inevitably to become a permanent feature in the organisation of society. For once a certain class comes to depend upon relief for some necessity of life, everything becomes adjusted to a condition of things in which that service forms an important part. It was a realisation of this fact that led to the introduction of "less eligible" conditions into the Poor Law; this feature of the Poor Law is not due, therefore, to the fact that those who apply are in any way culpable; it is due to the conviction that the solution of the problem of poverty is to be sought in social re-adjustment, and not in methods which provide directly that which is lacking.

This conception of the function of relief held good for many years. Recently, however, there has been, as we have seen, a tendency to favour the administration of certain forms of relief outside the Poor Law without any trace of deterrence, and this can only mean that opinion has changed as to the possibility of

relief ever forming a permanently satisfactory solution of any aspect of poverty. For it must be obvious to those who support such measures that, once they have been established, it is most unlikely that they will ever be repealed. It would be very difficult to repeal, for example, such a measure as the Old Age Pensions Act when a whole generation had been encouraged to calculate upon a definite pension at a certain age.

It is now possible to put more clearly the points that we must answer. We want to know whether there are any forms of relief that can be administered without deterrence as free national services which we should be willing to see as permanent features of society. We must be certain that there is as little objection to them as there is to the free provision of public parks and libraries. Further, we wish to be able to distinguish those aspects of poverty which can be dealt with in this manner from those which cannot; for it is obvious that the whole problem cannot be solved in so simple a manner.

If we consider the system of national education, we may obtain some answer to these questions. In this case something is provided without any trace of "less eligible" conditions, which is not only desirable, but, according to modern ideas, absolutely necessary. The system was further made free because a large number of parents could not pay for the education of their children. There are three points in connection with the provision of education which deserve attention. In the first place, when education was made free it was a new need, and not something which naturally came within the calculation of every parent as a necessity that he ought himself to provide for his children. The service undertaken has not been so much wanted by those who benefit, as thought desirable for them by the more fortunate classes, who have experienced its advantages, because they have been able to provide it for themselves. Secondly, if education is provided free, the form which it takes need not differ in any important feature from that which it would assume if it were left to private enterprise; and therefore the existence of this service does not, because it is free, cause any change in the routine of family life or any shifting in the outlook of those who benefit. In other words, all the chief features of "going to school" are the same whether the school happens to be a national or a private school. Thus the system does not break into that traditional idea of legitimate independence and freedom in private matters that is upheld by nearly everyone, whatever their political opinions may be. Lastly, it tends rather to place a new responsi-

bility upon parents than to weaken the sense of duty towards children. Moreover, the question of cost should not be forgotten : expenditure upon education is in the nature of an investment ; expenditure upon many forms of relief, as, for instance, upon the relief of able-bodied paupers, is not.

Experience has thus shown that relief outside Poor Law has been applied with success to meet this need. There is no controversy upon this point ; no one thinks that parents are "pauperised" because their children go to the national schools. Let us turn now to the two special cases of the need of medical treatment and meals for school children. We may consider the former first. It is not true to say that the need is as novel as was that of education when it was first introduced. But it is largely in the nature of a novelty to the poorest class of parent. This may be doubted by many people ; but those who do so will be found to be without any but a superficial acquaintance with the poorer classes. It is scarcely going too far to say that the poorest classes of all merely realise that, when a child is so ill that it cannot get out of bed, something must be done. They have no idea of the preventive side of medical treatment, of the detection of symptoms, of the rules of health. Knowledge on these subjects improves as we go up the social scale, but it is lamentably deficient even among classes well above the poverty line. • Medical treatment, therefore, using the word in an extended sense, is largely a new need. But it is something more than that. The need for education, once it is recognised, is a normal and regular need. The need for medical treatment, however, is neither regular nor normal. Disease in any form is abnormal, and falls with the most irregular incidence upon different families. Even if it came into the minds of an ordinary parent to make provision against disease it would be quite impossible for him to calculate what he should lay aside.

As regards the administration of the service, it need not in any essential feature differ from private treatment. In fact, "going to the doctor" does not assume any peculiar character which affects the whole outlook of those concerned because the treatment is free. If the children are treated at all, whether they go to a private doctor or to one in the public service makes no difference to the routine of daily life. The system neither forces parents to do something which they resent as an intrusion upon their private concerns, nor does it tend to make them less resourceful or independent than before. On the contrary, those who have had practical experience of the working of the Act of

1907, for the most part agree that it has done much to increase the sense of parental responsibility. Parents who never before troubled about matters which seemed to them minor ailments, but which often are of great importance to the growing child, are now anxious to detect symptoms of disease in their earlier stages. As to the matter of cost, it is obvious that money spent in this direction is more certainly in the nature of an investment than money spent upon education; for though we may be convinced that some form of education is desirable, we cannot be certain of the value of any one particular system. But we can have no doubt that good health in the coming generation will be of the greatest importance to the community. Further, the cost of medical treatment will without doubt diminish very considerably, and in this respect it differs fundamentally from most proposals of this nature which invite us as a rule to embark upon a course, the annual expense of which seems likely to increase indefinitely.

Let us sum up the case of the need for medical treatment. We start with the fact that a large number of parents cannot pay for such treatment as is desirable. There are two courses open; we may hope that such social readjustments as we can make will in time enable this section of the community to earn higher wages and provide what is lacking for themselves; or we can set up a national service whereby this need is directly supplied in kind. Before we can approve of this alternative we must convince ourselves that such a system would form a permanently satisfactory feature in social organisation; in other words, we must inquire what the influence of the system upon character would be, and whether it is compatible with such a life of freedom and independence as we desire to see made possible for everyone. Now, the method of social adjustment is slow and uncertain in its working, the benefit to be achieved by a provision of the need great and immediate. Thus, if after a critical examination of the case we come to the conclusion that neither cost, influence upon character, or anything else stands in the way, we can advocate its adoption, and can disregard all objections on the grounds that everything is done for people from the cradle to the grave, because, if such criticism has any meaning, it is that character is weakened, and we have inquired as to whether this is so or not.

Whether such a service should be free to all, as education is free, or limited to those whose incomes are less than a certain amount, would require too much space to discuss here. It depends upon the degree to which medical treatment is a new need to

classes above the poverty line. There would seem to be no justification in limiting it to strictly necessitous cases as is done now. Probably the most satisfactory course would be to make it free to all children attending elementary schools.

We now come to the far more difficult question of the free provision of meals to underfed children. It is also a question of greater urgency because it affords a good electioneering cry, and pressure to extend the provision of meals will be greater and come sooner than pressure to extend the system of medical treatment. The very fact that it does form a good electioneering cry shows that we are not dealing with a new need. The necessity for providing meals for his children must come within the view of every parent. It is so obvious that this is the case that we need not dwell upon it. It is clear that relief of this kind must profoundly effect the outlook of those who benefit, for it is impossible to see how it can be given without interfering with the ordinary routine of life in such a manner as to discourage independence and enterprise. No parents will take the same view of their responsibility when their children have been fed at the public expense. For it must be remembered that we have reason to believe that if such relief was offered to all elementary school children it would become permanent; in other words, the life of the poorer classes would be so ordered that in the matter of children's meals they would be entirely dependent upon relief. And it seems certain that, taking human nature as we know it, and remembering the traditional ideas among which everyone is brought up, character would deteriorate and the average level of all these qualities which make a man more or less valuable would be lowered.

Those who have had practical experience of the working of the two Acts notice a remarkable difference as regards the influence which they exert. The provision of medical treatment encourages the better class of parent and brings out the more desirable qualities. The provision of meals, on the other hand, has precisely the opposite result; there is a strong temptation for parents to be untruthful and to make out their means as less than they are. So difficult is it to discover the truth in the different cases which come up for treatment that upon the whole the good parent is penalised and the untruthful parent profits.

We have to remember, however, that in addition to merely fulfilling a need of the moment, money spent in this way is an investment. It is recognised fairly widely that the provision of meals may be made an opportunity for education in the sense that

good manners and the proper use of knives and forks may be taught. But those who are acquainted with the lives of the poor will lay more stress upon another aspect. What, above all things, is lacking in poor homes is regularity, order and discipline; in good homes regular and orderly meals are one of the chief influences in training a child in these duties. In bad homes meals are taken anyhow and at any time. In this sense the provision of meals is a valuable influence in a child's life; it is an investment in so far as the ideal of what the standard of life should be will have much to do with the kind of home which the child will in time to come form for himself.

Thus far it would appear that this particular need is not one that can be suitably treated outside the Poor Law; this fact, however, seems particularly regrettable in as much as such a free service does more than satisfy a present need, since it forms a *valuable moral training*. This is the place where we may with advantage take note of a most unfortunate confusion which has now been introduced into the whole question. Formerly the Board of Education issued a separate report upon the working of this Act. For the last few years the report has been included in that of the Chief Medical Officer of Health, and it is clearly the intention of the Board to consider the provision of meals as part of the medical work of local education authorities. What they appear to say is this: an under-nourished child presents a case for medical treatment, and the medical officer should be able to send the child to the school dinners. But surely under-nourishment is not a medical matter at all when it is due to lack of food; when due to inability to assimilate food, then it may well be so, and the doctor should have power to order special food to meet the particular circumstances of the case. If these two cases are confused, the result is the vital difference as regards influence upon character between the provision of a new want and of a natural necessity is lost sight of; and the provision of medical treatment will bring in its train the evils that follow the provision of free relief outside the Poor Law for needs that are not suited for such treatment.

What, therefore, is to be done to meet this case? Is the proper course to leave the treatment in the hands of the Poor Law authorities as the discussion indicates? The objection to this course is that it does not meet the case at all. The parents do not go of their own accord to the Poor Law at the present time, and it is impossible to force them to do so. To leave this matter to the Poor Law is equivalent to giving up all hope of finding a solution of the problem through any form of relief.

There is one aspect of the case which has not yet been mentioned, and which suggests a partial solution of the difficulty. Whenever relief is given to children the parents are relieved to the extent of the cost of the service provided. But although both parents and children benefit, it is the former alone with regard to whom there is ever any reason to fear that demoralisation will result. If there is any injurious influence upon the children, it will be indirect and due to the character of the parents. To see that this is the case, we have only to consider what "pauperisation" presupposes. It is to a large extent synonymous with a weakening of the sense of responsibility, with a loss of initiative and enterprise; and no one can, therefore, be "pauperised" unless he has already a knowledge of the conditions of life, of a struggle to earn a living, and so on. Of all this the school child of fourteen or under has no real understanding, and he can have none until he has been launched, as it were, into a wider life outside school.

If this is true, then one half of the difficulty is removed. We need not fear that the system will have any directly injurious influence upon the character of the children. It suggests that since the need is pressing, and its fulfilment is also in the nature of an investment, the parents might be disregarded in the most urgent cases. Supposing that the system was confined to these cases, who would the parents be? They would be found to consist of one of three classes: either the casual labour class, or of the class which has been brought into distress by some unavoidable circumstance, or of the hopelessly degraded class. Now it should be noticed that something is being done for both the former classes at the present time; and we may look forward to seeing before very long a distinct improvement with regard to casual labour, unemployment, and unavoidable distress. There is, therefore, reason to hope that the worst cases among these classes will disappear; as to the last class there is, unfortunately, no further degradation to fear. The suggestion is, therefore, that we might in certain selected cases take the risk of the evils which, as we have seen, follow a system of free provision of meals in consideration of the good which it undoubtedly does.

The one necessary factor is that the system must not be administered so as to become permanent.¹ To ensure that the

¹ If, for example, it should be found that the system had any influence upon wages, it would be a sign that it had been extended too far. Statements have been made from time to time to the effect that parents have accepted lower wages because meals are provided for their children. The present writer has met with no such case himself; further, he has asked many members of "Care Committees" and others engaged in the administration of the Act if they have ever come across such cases; he has, however, never heard of a single example, as a result of these inquiries.

system shall not become permanent it must be strictly limited to the most pressing cases : and further, it should be understood by those who administer the system that it is of a temporary nature. It will be evident that the system suggested is not unlike that which is actually in force at present. The Act is differently administered in the various districts ; but upon the whole it is rather more widely extended than is here suggested as advisable. It is no doubt a dangerous experiment ; it is by no means certain that it will be possible to withstand the pressure to extend it, and any further extension will almost certainly make it a permanent institution.

A. M. CARR-SAUNDERS

SOME FACTORS AFFECTING THE INCIDENCE OF THE NATIONAL INSURANCE CONTRIBUTIONS.

THE contributions of workers and employers towards the National Insurance Funds may be borne by the contributors, or they may be shifted. In this article no attempt is made to determine their final incidence ; but one or two salient factors in the problem are selected and considered. (The normal contributions only are taken into account.)

I.—*The Workers' Contributions.*

The workers' contributions are, in the first instance, a deduction from wages. Will the worker continue to bear the burden? To-day we can make no such general statement as that "a direct tax upon the wages of labour can have no other effect than to raise them somewhat higher than the tax."¹ The hypothesis of bare subsistence wages, upon which this conclusion rests, is no longer tenable ; and other conditions have changed. But it might seem that the growth of trade unionism which exists as an active force for raising wages, would give support to Smith's solution. There is reason, however, to doubt this.

Trade unions may influence wages directly and indirectly : (a) They may force up wages in their own groups, and (b) this may have the secondary result of raising the wages of labour in general. We may neglect this second influence. Professor Marshall, for example, finds that "the power of trade unions to raise general wages by direct means is never great."¹ With regard to the first point, the importance of the influence of unions on the wages of their own groups will depend on the extent to which the trade union movement covers the industrial field.

Now, the total number of workers compulsorily insured against sickness is thirteen to fourteen millions ; whereas the total mem-

¹ Adam Smith : "Wealth of Nations," Bk. V., Part IV., Art. III.

² "Economics of Industry" (Third Edition), p. 392.

bership of trade unions in the United Kingdom is now estimated at just over three millions.

Again, the total number of employees compulsorily insured against unemployment is some two and a half millions; and of these, only about seven hundred thousand are members of trade unions.

TABLE I.

(Compiled from the Fifteenth Abstract of Labour Statistics: Detailed Tables.)

Trade Group.	Number of Employees affected by the Insurance Act, Part II.	Number of such Employees who are members of Trades Unions.
<i>Building.</i>		
Ordinary artisans	1,248,000	156,903
Labourers	50,000	12,217
<i>Engineering and Shipbuilding.</i>		
Ordinary employees :—		
(a) Engineering and Ironfounding	777,000	995,147 ¹
(b) Shipbuilding	137,000	
Labourers	50,000	
<i>Mill-sawyers</i>	43,000	5,679
<i>Coach-builders</i>	116,000	11,736
		Construction of Works } 18,240 ²
		Municipal } 97,907 ⁴
		Employees }
Total	2,421,000	719,675

¹ Includes 12,000 "National Sailors and Firemen," and 7,000 "Marine Engineers."

² Includes 16,017 "National Amal. Union of Labourers," 5,016 "Workers' Union."

³ These are "Dock, wharf, riverside and general workers."

⁴ Includes all kinds of municipal employees.

As to the distribution of the unions, it is still true that, in spite of the recent growth of the movement among unskilled workers, the most poorly paid are the least organised.

Hence, so far as the direct influence of trade unions is concerned, that influence touches only a small section of the insured workers (less than one-fifth of the whole class of wage-earners, and less than one-third of the wage-earners insured against unemployment), and these are already the more highly remunerated. For the majority of the workers, therefore, there is little reason to expect that trade unions will be able to cause the burden to be shifted from workers to employers.

II.—*The Employers' Contributions.*

The contributions of the employer towards sickness insurance are a tax upon production. How heavy is this tax? Here we wish to determine three relations:—

(a) The relation of the tax to the value of the output in certain groups of industries;

(b) The relation of the tax to the wages-bill; and

(c) The relation of the tax to profits.

These relations established we shall be in a position to understand the importance of the tax.

With this in view, we note that the employers' contributions for sickness insurance are proportioned, not to value of output, profit, or capital, but to the number of employees, of either sex, between the ages of sixteen and sixty-five (except those who earn, other than by manual labour, £160 a year and upwards). In each trade the employer pays, in respect of every such employee, the sum of threepence per week.

Now it may be that in time a part or the whole of the workers' contributions may in some cases be shifted forward to the employer in the shape of higher wages. When this takes place the tax on the employer will be increased by an amount not exceeding fourpence, and the employer will then be paying, in respect of every employee, the sum of sevenpence per week. Hence, in the following calculations, we give two sets of results; the first based on the assumption that the employer pays only his own contribution; the second on the assumption that he pays both his own and his employees' contributions.

(a) The first point, then, is *the relation of the tax to the value of the output*. This we shall calculate, first for industry generally; second, for separate groups of industries, as given in the report of the Census of Production; and third, for certain subdivisions of industries within groups.¹

The Census provides the following figures:—²

Value of gross output of Census Industries in the United Kingdom =					£1,765,366,000
Deduct—Cost of Materials =					£1,028,346,000
Cost of Work given out ..					24,885,000
					1,053,231,000
Net Output					£712,135,000

¹ The Census Report arrives at "Net output" by deducting from the value of the "gross output," (a) the cost of materials used and (b) the cost of work given out to be done by other firms.

² Report of First Census of Production, p. 19. The industries investigated directly for the census include factories, workshops, mines, quarries, building trades,

In the Census of Production trades, the total number of wage-earners (male and female, under and over eighteen years of age, and including outworkers) was 6,595,276.¹ This figure we may take as practically equivalent to the number of insured workers within those industries. Salaried persons are excluded, and some of these might be insured; but against that we have included wage-earners under sixteen years of age, who are not insured.

It has been estimated that on the average six weeks per annum per wage-earner are lost through unemployment, sickness, &c. But that period may not be made up of complete weeks, and therefore may not affect the payment of contributions. For this reason, and because we would err by making the tax appear larger rather than smaller than it really is, we shall assume that the contributions are paid for fifty-two weeks in the year. Hence for sickness insurance the contribution of the employers alone is equal to—

$$3d. \times 52 \text{ per employee per annum :} \\ \text{or } £1,287,000^2 \text{ for the 6,595,276 employees.}$$

Similarly, for sickness insurance, the contributions of employers and employees together amount to £10,003,000. Comparing this with value of net output we find that—

1. Employers' sickness contributions equal 0.6 per cent. of value of net output.
2. Employers' and workers' sickness contributions „ 1.4 „ „ „

Next, the total number of persons engaged in agriculture in the United Kingdom in 1908 was 2,824,000³

Of these, some are not insurable, viz. :—

Occupiers of holdings in Great Britain	...	500,000	
Farmers and farmers' sons in Ireland	...	577,000	
		<u>1,077,000</u>	
Insurable agricultural workers	...		1,747,000

For the same year the net output of agriculture was £210,000,000.⁴

Hence,

1. Employers' sickness contributions equal 0.5 per cent. of net output.
2. Employers' and workers' sickness contributions „ 1.2 „ „ „

works of construction. Excluded are persons working on their own account, occupiers of domestic workshops, and certain specified trades. The report incorporates the results of special investigations into agriculture and fisheries.

¹ Census of Production, p. 12.

² Correct to the nearest thousand.

³ "Census of Production," p. 12.

⁴ *Ibid.* p. 24.

Lastly,⁴ Fisheries employed 107,000 persons.¹

Value of net output of fisheries was £12,000,000.²

Hence,

1. Employers' sickness contributions equal 0.5 per cent of net output.
2. Employers' and workers' sickness contributions " 1.3 " " "

Summing the foregoing results, we find :-

Group of Industries.	Employers' Sickness Contributions as per- centage of Net Output.	Employers' and Workers' Contributions as per- centage of Net Output.
The Census Industries	0·6 per cent.	1·4 per cent.
Agriculture	0·5 „	1·2 „
Fisheries	0·5 „	1·3 „
Census Industries, Agriculture, and Fisheries ..	0·6 per cent.	1·3 per cent.

But this average may give a false impression. Since the tax is proportioned to number of employees, the actual weight of

TABLE II.

Group of Industries.	Col. I.	Col. II.	Col. III.	Col. IV.		Col. V.	
	Gross Output ¹ (In £000's.)	Net Output, ³ (In £000's.)	Number of Wage earners. ⁴	A.	B.	A.	B.
Textile Trades... ..	333,561	94,334	1,210,777	Per cent. 0·2	Per cent. 0·8	Per cent. 0·5	Per cent. 1·9
Building and Contracting	116,692	60,456	674,579	0·3	0·7	0·8	1·7
Timber Trades... ..	46,390	21,444	214,764	0·3	0·6	0·7	1·4
Iron, Steel, and Ship-building	375,196	153,082	1,432,489	0·2	0·6	0·5	1·4
Leather, Canvas, and India-rubber	34,928	8,618	75,666	0·1	0·6	0·3	1·4
Mines and Quarries	148,026	119,531	947,178	0·4	0·5	0·9	1·2
Clothing Trades	107,983	47,673	755,882	0·4	0·5	1·0	1·2
Paper, Printing, &c.	61,308	33,650	287,222	0·3	0·5	0·7	1·2
Metal, other than Iron and Steel	93,465	11,893	101,687	0·07	0·3	0·16	0·7
Food, Drink, and Tobacco	287,446	89,514	400,617	0·09	0·3	0·2	0·7
Chemical and Allied Trades	75,032	21,557	110,107	0·08	0·3	0·2	0·7

(Col. IV.—A = Employers' sickness contributions as a percentage of "Gross Output."
B = "Net Output."

[illegible]

¹ "Census of Production," p. 12.

³ First Census of Production, U.K. (1907) p. 21.

² *Ibid.* p. 24.

⁴ *Ibid.* p. 12.

the tax will vary for different industries according to the relative importance of manual work in the process of production. In industries in which the number of wage-earners engaged is high compared with value of output, the weight of the tax will be relatively great, and *vice versa*. We have, therefore, worked out similar percentages for the different groups of industries embraced under the Census of Production, and the results are given in Table II. (p. 371).

The groups of industries in the above table are arranged according to the size of the percentage of combined contributions of workers and employers to value of net output; and the table shows that even where that percentage is greatest, it does not rise to 2 per cent. In the case where it is least it falls to 0·7 per cent. As would be expected, in such trades as the chemical, and those dealing largely in precious metals, the percentage of contributions to gross output is very low; the net output is small compared with the gross, and the difference between the percentage of contributions to gross and net output is very great. On the other hand, where cost of raw material is small, or absent, as in quarrying, timber trades, &c., the difference between gross and net output and therefore between the percentages, is slight.

Lastly, to particularise even more fully, we find similar figures for individual industries within certain groups. Here we select two groups, one which stands high in the foregoing table, and one which stands at the bottom; and in these we choose at random one or two industries as given in the detailed tables of the Census of Production.

Under the group called "Mines and Quarries" we find :—

TABLE III.

Trade	Gross output.	Net output.	Wage-earners.	Employers' contribution as a percentage of		Employers' and workers' contributions as percentage of	
				Gross output.	Net output.	Gross output.	Net output.
	£000's	£000's.		Per cent.	Per cent.	Per cent.	Per cent.
Coal Mining . . .	122,637	106,090	824,822	0·4	0·5	1·0	1·1
Salt Mining ...	667	319	4,433	0·4	0·9	1·0	2·0
Slate Quarries .	1,148	1,044	14,042	0·8	0·8	1·8	2·0

Similarly, under the group called "Metal Trades other than Iron and Steel," we find :—

TABLE IV.

Trade.	Gross Output	Net Output.	Wage-earners.	Employers' contribution as a percentage of		Employers' and workers' contributions as percentage of	
				Gross output.	Net output.	Gross output.	Net output.
Plate and Jewellery	£000's 8,559	£000's 3,599	33,119	Per cent. 0.2	Per cent. 0.6	Per cent. 0.5	Per cent. 1.3
Gold and Silver Refining	51,226	431	1,879	0.002	0.2	0.005	0.6

Reviewing the results so far obtained, we find that, whether we take industry as a whole, or look at separate groups, or at individual types of industry within groups, the joint contributions of employers and workers for sickness insurance never rise above 2 per cent. of the value of the net output; and that, in an extreme case, like that of gold and silver refining, they fall as low as 0.6 per cent. If, on the other hand, we compare contributions with gross output, we find that the percentage falls, in the case of gold and silver refining, as low as 0.005 per cent.

To understand how slight is this burden due to the insurance contributions, let us assume that the whole of it could be shifted by producers on to the prices of produce, and compare the consequent addition with the actual variations in prices of goods which take place from year to year. One or two examples will suffice. (1) First, taking the whole of industry, the proportion of workers' and employers' joint contributions to value of net output¹ in all the Census industries (including agriculture and fisheries) is, as we have seen, 1.3 per cent. Hence, if the tax were shifted on to prices, prices would be raised by 1.3 per cent. This figure is only slightly greater than the average annual increase in the prices of wholesale articles from 1901 to 1911 (viz., 1.2 per cent.), as shown by the Board of Trade Index Numbers.² (2) Secondly, in the single industry of coal mining, a similar calculation shows that the addition of the whole of the insurance tax to prices would mean an increase on the price of coal at the pit-mouth of 1.0 per cent.³; whereas the annual variations in price due to other causes are greater than this in nearly every case.⁴ (3) Lastly, the Board of Trade index numbers for the changes in the wholesale prices of the raw material of the textile trades since 1900, show

¹ At the place of production.

² Fifteenth Abstract of Labour Statistics, p. 138.

³ See Table III.

⁴ Fifteenth Abstract of Labour Statistics, p. 139.

an average annual increase of 2·6 per cent. Now an addition of 2·6 per cent. to the value, in 1907, of the raw materials of the textile trades is equal to 6·4 per cent. of the net value of the output of those trades for that year, whereas the whole of the insurance tax is equal to only 1·9 per cent.¹ of the value of the net output.

Such calculations show that the amount which would be added to price if the whole of the insurance tax were shifted forward to the consumers is small compared with the actual variations in wholesale prices from year to year.²

(b) Let us now pass on to consider the *relation of the insurance contributions to wages*. In the absence of the final report of the recent inquiry into earnings of labour, it is almost useless to attempt any comparison of the insurance contributions with wages in general. But if we take the results as published, we find that the average earnings for men (over twenty years of age) engaged in textile and clothing industries, in building trades, in public utility services, in metal, engineering, and shipbuilding, and in railways, were, for 1906-7, 30s. 9d. per week. For these trades, and on these figures, the employers' sickness contributions is 0·8 per cent. of wages, and the joint sickness contributions of worker and employer is 1·9 per cent. of wages.

Coming to smaller groups we are able to show within what limits the tax falls in different industries. The Reports of the Board of Trade Enquiry into Earnings in the United Kingdom, so far as published in the Fifteenth Abstract of Labour Statistics, show that the average weekly *earnings* of all workpeople (including those who worked less or more than full time) were lowest, for 1906-7, in the dress, millinery, &c. (workshop) industry and highest in iron and steel manufacture (iron puddling, steel making, rolling, forging, &c.). Hence we get the following maximum and minimum results :—

¹ See Table II.

² It may be objected that the above reasoning is valid only when goods pass through the hands of only one manufacturer in the course of their production ; that where they pass through many hands the tax may be passed on at each stage ; and that this cumulative process may result in a quite serious enhancement of price to the ultimate consumer. The objection is relevant. But the rate of accumulation is not constant ; and prices of final products often remain level in spite of remarkable fluctuations in cost of raw materials. No general conclusion can be drawn as to the importance of this cumulative process.

TABLE V.

Trade.	Average weekly earnings.		Employers' sickness contributions as percentage of earnings.	Workers' and employers' joint contributions as percentage of earnings.
	s.	d.	Per cent.	Per cent.
Dressmaking .	11	1 ¹	2·2	5·2
Iron and Steel	33	0 ²	0·7	1·7

¹ Fifteenth Abstract of Labour Statistics of the U. K., p. 113.

² *Ibid.* p. 91.

The above percentages give the outside limits. In industries in which the workers are chiefly adult men, the percentage will approximate to the lower limit; in those which employ a large proportion of youths and women, it will approach the higher.

(c) *Relation of Insurance Contributions to Profits of Industry.*—Possibly most light would be thrown on this question of the weight of the insurance tax if we could ascertain its proportion to the profits of industry; but it is just here that the necessary statistics are not available. To determine that proportion one would require to know, for the same industry or group of industries, (1) the number of wage-earners employed, and (2) the profits. Public companies, of course, publish their accounts and balance sheets, but rarely if ever make any reference to the number of wage-earners they employ. We have been able, however, by indirect methods to get an approximation to these figures in one or two cases. Some of the instances to be quoted are not quite recent, and at the date of their reports the Insurance Act was not in force. But taking their figures it can be determined to what extent profits may be reduced by the insurance tax.

Example I.

The first example is that of a Scottish coal mining company, which tells us, in a prospectus dated 1902, that its output of coal amounted to 4,150,000 tons. Now, from the Census of Production Report¹ we can find the total output of coal for Scotland in 1907 and the number of employees. From these data we can reach a rough estimate of the number of wage-earners in the colliery under consideration, and this number we put down as 11,000. The profits of this company, according to the same prospectus were, in 1901, £287,110. Hence, in such a case,

Employer's Sickness contribution would be 3·1 per cent. of profits.
Workers' and Empl. yers' Sickness contributions would be 7·4 „ „

Example II.

The second example is that of a railway company, which, in its report for the latter half of 1912, states that, for that half-year, the expenditure on—

Health Insurance was	...	...	£9,912	8	3,	and on
Unemployment Insurance was			1,815	9	10	

As the payment of insurance contributions did not begin till July 15th, 1912, this sum does not represent the contributions for a full half-year, but the same report estimated that a total expenditure of £25,000 a year could be expected. We may therefore estimate that for the full half-year the total contributions would have been—

For Sickness Insurance	£10,750	} Total ... £12,500
„ Unemployment Insurance	...	£1,750		

In the same company the net balance available for dividend, after deducting from receipts the total expenditure on revenue account, providing for all fixed charges and setting aside the necessary sum for special renewals, was £1,058,986. Hence we find that—

Employers' Health contributions	...	...	= 1.0 per cent. of profits
„ Unemployment contributions	= 0.1	„	„

Example III.

Lastly, we take the case of a company of shipbuilders, ship-repairers, and marine engineers. In this case the only relevant data given us in the prospectus are the total wage bill for sixteen years, viz., £5,260,889; and the average profits, for sixteen years, left after providing all working expenses (including directors' fees and income tax, but excluding interest on borrowed money and depreciation), viz., £97,223. Now, from the reports of the Earnings and Hours of Labour Enquiry, we know that in the ship and boat-building industry the average earnings of all workpeople in the United Kingdom (including those who worked less or more than full time) was 28s. 11d. per week in 1906. From the total earnings of the workers in this company, and the average earnings of workers in this industry, we can form a rough estimate of the number of workers employed by this company. The number works out at approximately 4,400. Hence—

Employers' Sickness Insurance contributions	- 2.9 per cent of profits
Workers' and Employers' Sickness contributions	= 6.8 „ „

The following table sums up these results and adds other figures :—

TABLE VI.

	Railway Co.	Coa. Mining Co.	Shipbuilding Co.
Production (amount)	—	4,150,000 tons.	58,783 tons.
Receipts, total	£3,537,297 (half yr.)	—	—
Profits—			
(a) Total	£1,058,986 ..	£224,000	£97,223
(b) Per ton	—	1/-	£1 13
Employers' sickness contributions...			
(a) Percentage of receipts ..	0.3 per cent.	—	—
(b) " " profit ..	1.0 ..	3.1 per cent.	2.9 per cent.
Joint sickness contributions as percentage of profits ...	—	7.4 ..	6.8 ..

The foregoing are the results obtained from a consideration of the contributions for sickness insurance only. In industries which come under the unemployment section of the Insurance Act, the burdens are, of course, heavier. By using the Report of the Census of Production it is possible to make similar calculations for industries which closely correspond to those taxed for unemployment insurance. The following tables summarise the results thus obtained :—

TABLE VII.—SHOWING RELATION OF CONTRIBUTIONS TO VALUE OF NET OUTPUT.

Industry.	Value of net output.	Number of Wage-earners.	All contributions as percentage of net output.	Sickness contributions as percentage of net output.	Unemployment contributions as percentage of net output.
	£000's.		Per cent.	Per cent.	Per cent.
Clay, Stone, Building and Contracting ¹	60,455	674,579	2.9	1.7	1.2
Iron and Steel, Engineering and Shipbuilding ² ...	153,082	1,432,489	2.4	1.4	1.0
Railway Carriage and Wagon Trades ³	3,562	27,105	1.9	1.1	0.8

¹ Census of Production Report, p. 743.

² *Ibid.* p. 93.

³ *Ibid.* p. 226.

TABLE VIII.—SHOWING RELATION BETWEEN CONTRIBUTIONS AND WAGES.

Industry.	Average weekly wage, 1906 ¹		Employers' contributions as percentage of wages.			Joint workers' and employers' contributions for sickness and unemployment as percentage of wages.
			Sickness	Unemployment.	Total.	
	s.	d.	Per cent.	Per cent.	Per cent.	Per cent.
Sawmilling and Machine Joinery	22	7	1·1	0·9	2·0	4·4
Engineering and Boiler-making	27	3	0·9	0·7	1·6	3·7
Ship and Boat Building and Repairing	28	11	0·8	0·7	1·5	3·1
Building	28	6	0·8	0·7	1·6	3·5

¹ Fifteenth Abstract of Labour Statistics, pp. 87, 88.

JAMES CUNNISON

REVIEWS

Railroads: Rates and Regulations. By WILLIAM Z. RIPLEY, Ph.D., Nathaniel Ropes Professor of Economics in Harvard University. Longmans. 1913. Pp. xviii + 659. Price 14s.)

By this book and its two companion volumes, *Railway Problems, Selections and Documents in Economics*, which appeared two years ago, and *Railroad Finance and Organisation*, announced to appear directly, but sections of which have already been published in advance in *The Railway Age Gazette* and elsewhere, Professor Ripley has put economists all over the world—but more especially in England, where there is no railway literature worth mentioning—under a deep obligation. In the English language, at any rate, there exists no such complete presentation of the whole subject from the pen of so competent an author. The fullness of detail and wealth of illustration is such that an economic student desiring to obtain a thorough understanding of the railway problem as a whole—though not, of course, that of any country other than the United States in particular—will in future be able to find all he needs in Professor Ripley's work, and need hardly seek the fountains for himself.

My attitude towards the present book as a whole is one of unfeigned admiration. Having tried something in a much smaller way on the same subject myself, I know how difficult the book must have been to write: and I can appreciate the skill with which the task has been accomplished. There is only one serious criticism, and that Professor Ripley almost disarms by the frankness of his Preface: "If bias there be, it will in all likelihood be found to favor the welfare of the 'dim inarticulate multitude.' . . . If there be lack of judicial poise in this regard, it is, at all events, palliated by free confession in advance." In my opinion there is "bias" and "lack of judicial poise," due, as it seems to me, not merely to sympathy with the "dim inarticulate multitude," but to the fact that Professor Ripley has in his

study of the subject been in contact with, and therefore unconsciously imbibed the ideas and the mental attitude of the regulators, State Governors, State Commissioners, and Interstate Commissioners, rather than of the regulatees, the railway companies. No one who has watched from the outside the long process of development which the regulation of railways by public authorities has gone through in the United States, can reasonably doubt that, while the public authorities have usually—though most emphatically not always, by any means—been actuated by the best and most honest intentions, they have again and again forced upon the railway companies a policy contrary to the public interest. And yet in no instance that I have noticed has Professor Ripley openly expressed disapproval of their action. The prohibition of pooling by the Act to Regulate Commerce of 1887 almost of necessity thrust the railway companies back into the slough of secret rebates and unreasonable discriminations, from which the better managed lines, at least, were doing their utmost to escape. Professor Ripley chronicles, but does not condemn. The railway companies, struggling to get away from a vicious system, complained for years that the Interstate Commerce Commission failed to use such powers as it possessed—and they were not inconsiderable—to assist them. Professor Ripley is silent on this point. The decisions of the Supreme Court in the *Trans-Missouri* and *Freight Traffic Association* cases, which decided that the Sherman Anti-Trust Law applied to railroad companies—in spite of the admitted fact that Congress had not intended it should so apply—were mainly responsible for the welter of rebates which discredited railway management in the closing years of the nineteenth century. Yet Professor Ripley, who does not hesitate to criticise judges quite freely when they may happen to curb the ambition of his hero, the Interstate Commerce Commission, has in this case not a word of disapprobation, or even of regret, to offer. Nor does he so much as mention the name of Mr. Cassatt, then President of the Pennsylvania Railroad, the one man who did more probably than any dozen public functionaries to put an end to secret rebates.

In some cases Professor Ripley's unconscious bias against the railway companies leads him to ignore the facts of his own evidence. A good instance is to be found in the chapter on the Movement of Rates since 1870. On p. 425 he says: "The curve of revenue per ton mile, as shown by diagram at the head of this chapter, certainly gives no indication of the considerable

increase of freight rates which has ensued since 1900. . . . Although the curve does not show it, there has been a notable upward movement all along the line." On p. 427 he speaks of "the substantial increase of rates which has taken place during the decade," which was, he says, "more often accomplished surreptitiously." After discussing for three pages this substantial increase, which he takes for granted, though he admits that the curve does not show it, he adds that "it must suffice that the fact of a substantial rise of charges since the turning point in 1900 is beyond question. On the other hand, it is indubitable that such increases have occurred, arousing vehement protests among shippers, and have been more widely advertised than change in the pposite direction. Substantial reductions, especially on low-grade staples, have sometimes occurred, and *one is almost at a loss how to strike a fair balance between the two in the absence of dependable data.*" [Reviewer's italics.] Is it unreasonable to suppose that the curve does strike a fair balance, and that the sum of the decreases roughly equalled the sum of the increases? Professor Ripley evidently does not think so; or, if the phrase may be permitted, does not "feel that way," for, on p. 430, he goes on to consider "How far the rise since 1900 has been commensurate with the general upward movement of prices of other commodities than transportation. . . . The evidence tends to show that prices in general have moved upward during the last ten years by approximately one-fourth, and it may be even one-third. Have railway charges in general surpassed this rate or not?" But enough on this point. For economists possessing no personal familiarity with the subject it is, I think, a serious blot on a work in other respects of the very highest value. On the other hand, there is a compensating advantage. The book will of necessity be read by every railwayman who desires to understand his own subject, and it will be profitable for him to see how the action of the railway companies appears to an outside student, whose intention to be fair is as unquestionable as his competence.

In so large a book, recording such a vast number of separate facts, there are bound to be mistakes. Here are two statements that look as if they cannot both be right: On the opening of the first Trans-Continental route in 1869, so it is stated on p. 19, "a large volume of trade was at once deflected from the sea-route round Cape Horn. The value of goods shipped by water between New York and San Francisco, which in 1869 amounted to \$70,000,000, fell in the next year to \$18,600,000, and in 1872

to less than \$10,000,000." Then, on p. 28, "It was estimated that as late as 1878 not over one-fourth of the total tonnage moved into California went by rail." Is it possible that the value of the one-fourth was so very much greater than the value of the three-fourths as to explain the enormous drop in the value of the ocean-borne traffic?

Statements as to the amount of assistance given to the railways of the United States from public sources are often made, but they are seldom conclusive. Professor Ripley says on p. 39, "Reliable evidence tends to show that the State and National Governments, up to 1870, had pledged themselves one way or another for a sum equivalent to one-fifth of the cost of construction of the 47,000 miles of line then in the United States. And approximately another fifth, at the very least, must have been contributed from local and municipal sources." It would be interesting to know what proportion the two-fifths of the capital as it existed in 1870 bears to the total railway capital of 1913; and, further, to know what has been the ultimate fate of the public investments. Certainly the Federal Government did well out of its advance to the Union and Central Pacific Railroads; and more than one of the Southern States nets a handsome income nowadays as a railway shareholder.

On p. 90 we read that "the London and North-Western, one of the leading railroads in Great Britain, reports recently an average freight load of only 68 tons." Alas! the North-Western not only does not report, but does not even know its average train load. We only wish it did.

On p. 105 Professor Ripley states in a very convenient form the general law applying both to cost and to rates: "The common rule is that the rate rises as the square root of the distance, rather than in proportion to it. A hundred-mile haul represents a cost approximately only twice as great as one of twenty-five miles, instead of being four times as much. For thrice a given cost the haul may be increased nine times." It probably should be added, so far as rate and not cost is in question, that the rule hardly applies to high-class traffic. It may not cost more than three times as much to move a ton of furniture 270 miles as to move it 30 miles; but it is very questionable whether any railway company would be content with making a charge only three times as much on an article that could well bear a higher rate.

Is it correct to write, as Professor Ripley does on p. 114, that "railway competition is of three entirely distinct sorts: com-

petition of routes, competition in facilities, and competition of markets"? Surely competition in facilities is a sub-head of competition of routes, having alongside it a second sub-head, competition of rates. Further, competition of markets is two-fold according to whether we regard the market as a place of import, or as a place of export. Is not the true formula something like this? "Railroads compete, or may compete, directly with each other in rates and facilities for the carriage of traffic for which two or more routes are available. Further, they compete indirectly with each other, acting in this case, however, not so much on their own account as in the capacity of agents for, and supporters of their customers, farmers, merchants, or manufacturers: on the one hand, to bring in, from different producing districts over different routes, agricultural products and raw materials into the great central points, where these goods are either consumed or bulked or transformed for further despatch to points beyond; or, on the other hand, to enable different concentration points to distribute over different routes goods for use in the same consuming area." It may be added that the same thing is true of passenger traffic. The Great Northern and the North-Western compete directly for passenger traffic between London and Edinburgh: and it matters nothing to the hotel-keepers at the two ends of the journey which route the passengers take. On the other hand, the Great Western service to Cornwall competes indirectly with the North-Western service to North Wales, and it matters very considerably to the hotel-keepers of the respective districts how far either company can make its competition effective. In other words, there is upon each company an economic compulsion to do what, in American railway phraseology, is termed sometimes "protecting its own territory," and sometimes "keeping everyone in business."

Professor Ripley opens up a wide field for discussion in the following statement:—

"Special rates which create new business should be carefully distinguished from special rates which merely wrest business from other carriers or markets. Any expedient which will make two blades of grass grow where one grew before; which puts American wheat into Liverpool in competition with India and Argentina; which cheapens California fruit on the eastern markets; which offers a wider choice of building stone for Chicago; which will establish new industries for the utilization of local raw materials, deserves the greatest encouragement. Our country has been unprecedentedly developed in consequence of the energy and progressive-

ness of railway managers. But thousands of other special rates have no such justification, even where they are public and open to all shippers alike. These are the expression of railway ambition to build up trade by invading territory naturally tributary to other railways or traders."

Is there really any such antithesis as Professor Ripley suggests? Is it not a case of the old definition of orthodoxy and heterodoxy? Can we doubt that the proprietors of quarries near Chicago consider Chicago territory naturally tributary to them? Can we suppose that they regard rates which "offer a wider choice of building stone" as "deserving the greatest encouragement"? Surely no one can lay down a formula, which shall cover all the millions of cases in practical life, to decide when competition is fair or unfair. We may agree that, just as the farmer who, by better methods or harder work, makes two blades grow where one grew before, is a public benefactor, so the railway manager who, by more economical utilisation of his plant and organisation can afford to, and consequently does, carry his traffic at lower rates, must on balance be rendering a public service. But the farmer operates on so small a scale that the injury which he causes to his neighbours is as negligible as the effect of a load of refuse dumped into New York Bay in eroding the coast of Ireland. A great railway company operates on so vast a scale that its rate-adjustments may effect the economic development of half a continent.

That this strong statement is none too strong will be admitted by anyone who studies Professor Ripley's account of the development of what are known as the "inter-mountain" rates, on which a case is now pending before the Supreme Court, whose decision, though it cannot be final in anything more than a judicial sense, will doubtless have very far-reaching consequences. Here is, roughly, in outline the situation as it has grown up since the Trans-Continental railways first came into competition for traffic from the Atlantic to the Pacific coast with the water route *via* Cape Horn. First, New York, let us say, obtained an exceptionally low through railway rate to San Francisco to compete with the water route. Then Buffalo and Pittsburg claimed that, unless they were given the benefit of this same rate, they would send their goods by rail to New York and thence by sea. The claim was conceded. The same demand was next made by Chicago and St. Louis, with the same result. Theoretically, no doubt, it might have paid these two cities to send their traffic 1,000 miles to the east by rail and then by sea, rather than use the all-land route of 2,300 miles at the local rate. Anyway, the

claim was conceded. But this was not the end. The growing Missouri towns, Omaha and Kansas City, asserted, no doubt with entire truth, that they could do no trade with California if they had to pay the local rates, while the whole eastern United States had the benefit of a low through rate. And the railway companies serving them naturally insisted on their right to "protect their territory." So once more the area from which the through rate applied was extended further to the west. And the result is that to-day the whole territory of the United States, stretching for more than 2,000 miles from Boston to Denver, has the right to the same through rate to San Francisco. And this, be it observed, by the extension to the nearest places of the benefit already granted to 'the most distant'.

But this is not the whole story. The through rate began as an inter-ocean rate, and points in California and Nevada, east of San Francisco, were back from the ocean. Shippers, therefore, at one such point A were, and still are, called upon to pay for goods to another such point B the through rate from A to San Francisco, *plus* the local rate back again to B. In other words, a merchant in Boston can send a car-load of goods 3,500 miles through Denver and Reno to San Francisco for considerably less money than would be charged for a car-load of the same goods from Denver to Reno, say 1,000 miles. Stated baldly, this result looks like grotesquely gratuitous injustice. And yet each step of the process by which it has been brought about might well be justified at the time. And the commercial situation in the whole of the Far West has grown up under, and has adapted itself to it.

The matter has been before the Interstate Commerce Commission in various cases extending over many years. In the decision now before the Supreme Court for review, the Commission has, after exhaustive discussion, put forward a solution which is at least ingenious. Broadly, it is this: Westward of a line drawn north and south through St. Paul and Omaha rates to intermediate points must not be higher than to the Pacific coast. From territory lying eastward of this line, but west of a line drawn north and south through Chicago, rates to the intermediate points may be higher by an amount not exceeding 7 per cent. From a third zone between Chicago and Buffalo the excess may be as much as 15 per cent. And finally, from the nearer neighbourhood of the Atlantic coast itself the excess may reach 25 per cent. Probably the suggested way out of a situation that cannot be defended as permanently reasonable is, provided the process of rearrangement is sufficiently gradual, as good as could

be found. But it is more than possible that the whole thing will be upset by the Supreme Court. For it is claimed by the railway companies, and apparently with good reason, that the Commission has gone beyond its legal powers. Its power, they say, is to prescribe reasonable maximum rates, but not to prevent the railroad companies going below these rates, or to lay down a general framework of relation of rates *inter se*.

Of the innumerable points which I had marked for citation and discussion I will give just one more. It has a twofold interest both in itself, and because it illustrates Professor Ripley's instinctive attitude towards railway companies. One of the latest amendments to the Act to Regulate Commerce made by Congress in 1910 is to the following effect :—

“Whenever a carrier by railroad shall in competition with a water route reduce the rates on the carriage of any species of freight to or from competitive points, it shall not be permitted to increase such rates unless after hearing by the Interstate Commerce Commission it shall be found that such proposed increase rests upon changed conditions other than the elimination of water companies.”

Now, in my judgment this is a quite proper provision, and, indeed, it so happens that the Report of the recent Vice-Royal Commission on Irish Railways contains a recommendation that the same restriction should be put upon our railways at home, for which I was specially responsible. But Professor Ripley makes this comment: “The following account by W. M. Acworth in the *Railway Age Gazette* of a conversation with the late Collis P. Huntington illustrates the possible abuse” The story, which is too long to quote here, may be summarised thus: The Southern Pacific Railroad ran two fine steamers between San Francisco and Sacramento. A competitor started a service by an inferior steamer at half rates. Thereupon the Southern Pacific laid up the big boats, and ran a cheap steamer at rates cut in half again, till they forced the outsider out of business, and bought up his steamer at their own price. Now this story, be it observed, does not illustrate the abuse. The action of the Southern Pacific Company was taken, not as a carrier by railroad, but as a carrier by water, and would not, therefore, have been contrary to the section as printed above. Further, it is surely at least arguable that water competition, even in the hands of a railroad company, is on a different footing from competition by rail. The service, for instance, between Dublin and Holyhead is carried on by the North-Western Railway in competition with

a private undertaking, the City of Dublin Steam Packet Company. It seems a hard saying that, if the Dublin Company were to start a rate war, the North-Western would be morally, and ought to be legally, bound merely to act on the defensive, and reduce its rates *pari passu*; and would be doing something reprehensible if it carried the war into the enemy's country.

I have expressed disagreement with Professor Ripley on a good many points, so let me conclude by thanking him—and I am quite sure no economist who reads the book will disagree with me—for one of the most valuable books that has been written on the subject in any language.

W. M. ACWORTH

Essays in Taxation. By EDWIN R. A. SELIGMAN, McVickar Professor of Political Economy, Columbia University. Eighth edition. Completely revised and enlarged. (Macmillan & Co. 1913. Pp. 707.)

THE works of American Professors of Economics seem to be almost entirely free from what, justly or unjustly, are called the academic failings. Certainly this is true of Professor Seligman. No one could accuse him of a craven reluctance to express opinions, or of any sort of pedantry. It does not matter how complex and intricate are any set of circumstances he is investigating, and how difficult and problematical any calculation with respect to them must be; he never shrinks from summing up his reasoning in one of those brief, decisive judgments for which readers are always exceedingly grateful. He spares no pains to ascertain first all the available facts: he is conscientiousness itself in his careful and elaborate study of anything that might throw light on a problem; but, when he has done all that he can do along these lines, he takes his chance of being wrong, and unhesitatingly states his general opinion. Nor does he allow himself to be hampered by an excessive obedience to the claims of orderly method. He passes rapidly from history to pure theory, and from pure theory to practical considerations, whenever it suits the purpose of the argument he has in hand; and, though this method may be only possible in a book of essays such as this is, it is difficult to see how otherwise it would have been possible to present in such a brief and well-proportioned way the main features of so many complicated matters.

It would be too much to say that he makes them all interesting. The General Property Tax in the United States, its history and administrative defects, the taxation of Corporations,

and the multitudinous problems connected therewith, are jungles which not even Professor Seligman's powers of compression and synthesis would make it worth while for English readers to traverse. They must simply rest in the assurance which the rest of the volume gives them, that, should they at any time be compelled to investigate such problems, they will find here a most helpful and trustworthy guide. The discussion of exclusively American questions occupied the greater part of the volume in the earlier editions. But Professor Seligman has now incorporated a great number of addresses and articles which deal for the most part with matters of general interest; and as these additions have resulted "in a volume of almost double the size of the original," they have altered fundamentally the scope of the book's appeal. In its enlarged form it should obtain a greatly increased number of readers on this side of the Atlantic.

Professor Seligman has brought up to date his survey of recent reforms with a particularly interesting chapter on the changes of 1909-10 in Britain, Germany, and Australia. He shows that there are certain important tendencies common to them all. He lays stress upon four points: (1) the development in all these countries of income and inheritance taxes, with the adoption of the principles of progression and differentiation; (2) the development of land values taxation; (3) the importance of the part still played by indirect taxes; (4) the growing need of a satisfactory adjustment of the relations between central and local finance. He is especially emphatic on the third of these points. He not unjustly complains that most theories of taxation take little or no account of indirect taxes in their criteria of justice. Refined discussions of equity proceed as though such taxes did not exist. It seems to be assumed that indirect taxation is undesirable and unfair, and, further, a form of taxation destined rapidly to dwindle and disappear. Professor Seligman shows how erroneous is this latter notion. Indirect taxes are bearing as large a share as ever of the burden of revenue-raising. It has been the proposals for direct taxation in the recent Budgets that have created the most clatter: but the increases in indirect taxation have been just as substantial. And so, "to say, as did a well-known writer some years ago, that all indirect taxation is crooked taxation, is seriously to impeach the entire modern development." This Professor Seligman is most unwilling to do. He is, above all things, a believer in modern development: and he accordingly demands some more satisfactory theory of equity to explain and justify the policy of indirect taxation.

His own attempt at supplying the deficiency is a very unsuccessful one. He starts by making the amazing assertion that hitherto, or until very recent times, no one had realised that there was a problem of the incidence of taxation. The fact that a tax may be shifted from the shoulders of him on whom it is placed he regards as an essentially modern notion. His own solution of the problem of incidence seems to be what he terms "the absorption theory." A tax after it has been once permanently established becomes "absorbed" by reason of "the doctrine of capitalisation." In other words—words, we think, not of recent origin—an old tax is no tax. How far Professor Seligman imagines the indirect taxes of a modern community are actually thus absorbed is not quite clear. But, he seems to argue that, even when the taxes are not "absorbed," they are, at any rate, "diffused." Their incidence is difficult to trace. They may be a burden on somebody, but upon whom it is impossible precisely to ascertain. And he seems vaguely to hold that they are therefore very appropriate taxes with which to meet expenditure whose benefits it would be equally hard to apportion. Such taxes harmonise with the organic conception of society. For does not the fact that a man can shift a tax show the organic nature of the relation between him and the community? And so, in the name of the new idea of the social organism, which is beginning to permeate modern thought, indirect taxes are approved. For this "newer theory of finance" Professor Seligman claims the title of "The Social Theory of Finance."

This is all very weak and slovenly. Weak and slovenly, indeed, Professor Seligman frequently is when he comes to matters requiring sustained, abstract thought. He is apt to shirk a difficult analysis and take refuge under cover of some vague and shapeless phrase. That it may be possible to ascertain, not the individuals, but the classes of society upon whom indirect taxes fall, that, in fact, such taxes burden the poorer classes to a greater extent than do direct taxes, that there are some arguments for, and some arguments against, so burdening the poor—in short, all the questions really relevant to the pros and cons of indirect taxation, Professor Seligman does not so much as allude to. He is far too preoccupied with his contemplation of this new discovery of the social point of view, from which altitude he beams upon indirect taxes a genial, and, for the most part, indiscriminating approval.

For the rest, Professor Seligman's views are probably sufficiently well-known to readers of the *ECONOMIC JOURNAL*. He

holds by the principle of "faculty," though he defines it in his own way. Faculty has a "production side" as well as a "consumption side." Equality of sacrifice, or any variation of the idea of sacrifice, covers only the consumption side. The idea of "privilege" must be taken into account for a well-balanced view of faculty.

Not only how much a man has, but how he got it, how easily, with what assistance from the State, and with what prospect of an easy continuation of such income, must be ascertained before a man's real ability to pay is known. From this central standpoint—a compromise between the exaggerations of the advocates of the old faculty theory, and of the single-taxers—Professor Seligman looks with sympathy upon the general tendencies of the time.

But it is not the discussion of general principles that form the main, or the most valuable part of this work. It should be read rather for the masterly and reliable digests and summaries it gives of complicated fiscal systems, and the bold yet sagacious use which is made of the method of comparative study.

H. D. HENDERSON.

The Standard of Value. By SIR DAVID BARBOUR. (London : Macmillan. 1912. Pp. xvi+242. Price 6s. net.)

STUDENTS of Blue Books dealing with monetary topics have long been aware that there has been no administrator in modern times with a firmer practical and theoretical grasp of the subject of Money than Sir David Barbour. Now, for the second time, he has turned author and has produced a volume fully worthy of his distinguished reputation.

The object of the book is twofold. The first part is a statement of that view of monetary theory on which Sir David has based his practical policies. The second is an *apologia* for these practical policies, in particular his apparent treachery to Bimetallism and the circumstances connected with the closing of the Mints in India. The theoretical preliminaries are very admirably treated, and are, in the opinion of the present reviewer, much superior to the work in these fields of all but a very few academic economists; and Chapter X., on "Alterations in the Relative Value of Different Monetary Standards," contains a not unimportant contribution to pure theory (about the practical application of which something is said below). But perhaps the historical and personal parts, constituting, as perhaps they do, the most important commentary in existence on the Bimetallic con-

troversy, are of the greater interest, and I will devote my review mainly to these.

For a very long period Bimetallism was almost perfectly effective:—"Taking the two markets of Hamburg and London, the highest market ratio from 1801 to 1870 was 15·8 to one, and the lowest was 15·48 to one, though during that period the relative production of gold and silver varied from 24 to 76, to 78 to 22." In 1872 Cairnes wrote that he believed a serious divergence in the relative value of gold and silver to be "practically out of the question." Sir David Barbour holds that the statesmen who initiated the monetary changes of the 'seventies, whether they acted wisely or not, certainly did not realise in the least what the consequences of their action would be. "The world drifted into Bimetallism and drifted out of Bimetallism without foreseeing the probable consequences of either change."

The actual consequences of the partial demonetisation of silver led, as we all know, to an historic controversy. With his appointment to the Royal Commission on Gold and Silver in 1886, Sir David Barbour began to take a prominent part in it. He belonged to the Minority party (five out of twelve) in the Commission, who "foresaw serious risks in the future if the simple gold standard was adhered to." Events have sided with the majority, but Sir David shows conclusively that the reasons on which their recommendations were based are open to serious criticism. Their whole attempt to distinguish between that part of the fall in general prices which was due to the "Appreciation of Gold" and that part which was due to other causes was founded on confusion; and the following passage from their report is not one which can fill the later critic with confidence in the grasp of monetary theory by these Commissioners:—"We believe the fall (in general prices) to be mainly due, at all events, to circumstances independent of changes in the production of, and demand for, the precious metals, or the altered relation of silver to gold."

Sir David then turns to the causes which led up to the closing of the Indian Mints. His explanation of the fall of the silver exchanges, based on the theoretical discussion referred to above, is, I think, in the emphases he makes, somewhat new, and at the same time very convincing. The fall in the gold price of silver was not mainly due, he affirms, either to the fall in the demand for silver due to its partial demonetisation or to any increased output of silver from the mines. It was to be explained by the fall of the *general* level of prices as measured in gold. If the exchange between gold and silver is to remain steady, while

general gold prices are falling in gold countries, then the general level of silver prices in silver countries must also fall, in order to preserve the balance of trade between the two and to prevent the silver countries from being flooded with goods from the gold countries for which they are unable to render other goods in exchange. This fall in silver prices, if it took place, would release silver from circulation. Quite apart, therefore, from new sources of supply of silver and the falling off of old sources of demand, this tendency to release silver from circulation must result in a substantial fall in the gold price of silver, unless—which is improbable in the absence of the bimetallic tie—the demands for silver elsewhere or for other purposes respond with great elasticity to a rise in the relative cost of gold and are not much dependent on the relative cost of other commodities. As a matter of fact, silver prices fell but slightly between 1873 and 1887, so that the prolonged fall of gold prices during this period had to be mainly compensated by a fall in the gold price of silver (*i.e.*, by a fall in the silver exchanges); otherwise equilibrium of trade could not have been maintained between gold-using and silver-using countries. As soon as the bimetallic link was broken and a large group of gold-using countries had been formed, the gold price of silver became chiefly dependent, so long as there was still an important group of silver countries, on the ratio of the general level of gold prices of articles of international trade in gold countries to the corresponding level of silver prices in silver countries. In the particular circumstances of the 'seventies and 'eighties the governing cause of the fall in the gold price of silver lay in the fall in the value of the denominator of the above fraction. As Sir David Barbour puts it, the fall in exchange, arising out of the tendency of trade prices to equilibrium, was the cause of the fall in the gold price of silver, rather than the other way round. This being the case, "any attempt to restore the old par of exchange between the two metals by purchasing limited quantities of silver was bound to prove too great a burden for any nation that undertook it," for it would have meant "the purchase of enough silver to cause a fall in silver prices in India and elsewhere of quite 30 per cent." "So far as the interests of Bimetallism were concerned, the purchase of silver by the United States was probably mischievous, as it relieved the strain on gold."

Sir David's account of the part he himself played in the closing of the Indian Mints is most interesting. His action in recommending it was a courageous one, involving a complete break of ideas from those of bimetallic friends of many years'

standing. The governing consideration in his mind seems to have been that a permanent difference of monetary standard between India and the chief countries with which she traded was intolerable; and there could be no permanent remedy "except either the general adoption of the system of double legal tender or the extension of the single gold standard." As soon as proposals for the first alternative seemed to be definitely defeated, Sir David Barbour did not delay or hesitate in falling back on the second.

To those of us who were in our nurseries when these things happened, it is an interesting speculation whether, living then, the Bimetallic or the Monometallic camp would have contained us. To a cool backward glance, Sir David Barbour's course seems to have had very much to recommend it. The choice of one metallic standard rather than another for any individual country is rightly guided by historical circumstance; it is not a matter on which theory as to what would make the best universal standard should count for much. In the 'eighties bimetallism must have seemed worth fighting for. But the course of events—American politics, South African gold and so forth—defeated it. The wise bimetallist should have hastened to acknowledge defeat. The statesmanlike opportunism of Sir David Barbour appears to such a backward glance in a stronger light than the dogmatisms of, for example, Sir Robert Giffen about the impracticability of a gold standard or the immeasurable evils of a managed currency.

This book is of a very rare type—wonderfully full of practical wisdom, yet showing at the same time the intellectual sharpness and precision of a first-rate academic mind. Happy the country which can discover in its administrators so fine a combination of gifts.

J. M. KEYNES.

Gold, Prices, and Wages. By J. A. HOBSON. (London: Methuen. 1913. Pp. xi+181. 3s. 6d. net.)

ONE comes to a new book by Mr. Hobson with mixed feelings, in hope of stimulating ideas and of some fruitful criticisms of orthodoxy from an independent and individual standpoint, but expectant also of much sophistry, misunderstanding, and perverse thought. In some of his books the first elements greatly predominate. In his latest work now before us, the latter prevail almost throughout. The book is a very bad one, made much worse than a really stupid book could be, by exactly those characteristics of cleverness and intermittent reasonableness which have

borne good fruit in the past. I will endeavour to elucidate his main contentions.

Mr. Hobson begins by distinguishing the different sources of the supply of money—*new* gold from the mines, *additional* credit from the bankers, and money “derived from prior acts of sale.” If all money were derived from prior acts of sale, the aggregate receipts would rise and fall with these acts of sale, and therefore prices must remain stable. This would be the case with a stationary community or with one “growing in such a way that it did not shift the proportion of its demand for different classes of goods.” If that is to say no new gold were to be mined and no new credit created by bankers, but we were all to produce, buy, and consume double (say) of what we do now, then prices, according to Mr. Hobson, would remain stable. “The only way in which prices could change in a community where money was entirely derived from previous receipts would be . . . if a larger proportion of money were directed to buying goods whose production conformed to the so-called law of diminishing returns,” and conversely. What is one to say to such an argument? It sounds like a parody of economic reasoning; the words have, in a way, the right sort of jingle to the ear, but the mind is left at a loss.

Mr. Hobson seems to be content with this conclusion for its own sake, and does not make much use of it. He passes on to prove that the gold produced during the last fifteen years cannot have had any appreciable influence in raising prices. Since the net income of the British nation is about £2,000,000,000, we may estimate the gross turnover at £10,000,000,000. The gross turnover of this country cannot be more than one-tenth of that of the world. “This would give £100,000,000,000 as the quantity of money operative for a year. To this sum there has been added (annually) from an extraneous source the gross income of the gold mines, an amount of £67,000,000. The gross income from gold-mining will have precisely the same amount of influence on general prices as the same gross income got from the textile or metal industries. The effect would be an increase of the aggregate quantity of money to the extent of $\frac{1}{1000000}$. The influence upon prices would thus be considerably less than $\frac{1}{100000}$ or $\frac{1}{10}$ per cent. The actual influence of this addition to money in raising prices would, of course, be much less, if allowance were made for the increase of goods which has been going on.” It seems almost incredible that Mr. Hobson should have convinced himself by such an argument. It appears to be based on the assumption

that no new coin can be used more than once; but it depends, I think, in Mr. Hobson's mind on an earlier and rather obscure argument that new money only influences prices the *first* time it changes hands.

Mr. Hobson turns next to the confutation of the theory "that an increased supply of gold somehow will necessarily expand the volume of credit which is said to be based upon it, and therefore enhances proportionately the entire volume of purchasing power." If the theory were true, we should find, now that prices have risen, Mr. Hobson says, a lower average rate of discount than formerly, and a larger accumulation of gold in the reserves of banks. Of course, the average rate of discount has risen and not fallen, but Mr. Hobson must know very well that the adherents of the theory he is disputing maintain, not that the *average* rate of discount must fall, but that new gold in bank reserves has the temporary effect of making the rate lower *than it would otherwise have been*—for he quotes the relevant passage from Dr. Marshall's evidence before the Gold and Silver Commission some pages further on, and points out himself that the rise in the average rate of discount is mainly due to the greatly increased demands for capital in new countries. Mr. Hobson goes on to deny the second indication, namely, the accumulation of gold in the reserves of banks, basing his conclusion on the amount of gold in the *issue department* of the Bank of England (not even on the Bank's reserve, and in spite of his own statement—p. 80—that there have been considerable new accumulations of gold in the reserves of English Joint Stock Banks), and slips on two pages later (p. 43) to apply this conclusion to "other European countries," although, since he himself gives a table setting forth the contrary on p. 46, he must well know that this is not the case.

But having thus disposed of the orthodox contention and greatly belittled the part played by gold in the raising of prices and the manufacture of credit, Mr. Hobson seems to come back to a position very little removed from that which he has demolished and hardly consistent with the weapons he has lately used. "Gold is not," he now maintains, "the chief efficient cause or stimulus of the enlarged credit, but it is, or may be, an essential or at least a facilitating condition of its production." "Had there been," he admits on p. 21, "a constriction of the gold supply and bank reserves been low, the price of money would have been higher than it has been, the aggregate amount of borrowing less, the subsequent demand for goods reduced, and the rise of prices correspondingly less." If Mr. Hobson merely wishes to deny

that the new gold has been "an efficient cause" of higher prices, while admitting that it has been a necessary condition of them, his earlier arguments have proved too much.

Whether the new gold has been a necessary or only a favouring condition to the manufacture of new credit, Mr. Hobson sees the main explanation of the increased credit elsewhere, namely, in the greatly increased volume, chiefly arising out of the borrowings of Governments, municipalities, and railways in new countries, of "stocks and shares and other certificates of value." "All such modern saving can furnish material for the creation of more credit." The argument he bases on this is founded on two very old confusions, which always have been and probably always will be made by certain types of mind having, as it were, a natural affinity to this way of thinking. The first is between the volume of credit (measured in terms of goods) and the value of credit (measured in terms of money). If credit, Mr. Hobson argues, is based on actual goods, and every piece of wealth carries with it "a credit-note representing its present value," how can it ever become redundant? "Each specific piece of wealth would have a corresponding token of general wealth attached to it. That token could be used for general purposes of purchase, its recipient holding a claim upon the general wealth into which the specific piece of wealth will be convertible. The volume of credit would evidently expand or contract with the expansion or contraction of the value of the goods which command it, and the notion of an excess or deficiency of 'money' would be meaningless." This is newly transmuted. But can we not hear in the distance the voice of Mirabeau urging on the National Assembly the issue of assignats?—"Paper money, we are told, will become superabundant. Of what paper do you speak? If of a paper without a solid basis, undoubtedly; if of one based on the firm foundation of landed property, never. Reabsorbed progressively in the purchase of the national domains, this paper money can never become redundant, any more than the humidity of the atmosphere can become excessive, which descends in rills, finds the river, and is at length lost in the mighty ocean."

The second confusion, of which I spoke above, is between the two senses of the word "credit," the sense in which it stands for the method by which the control of liquid wealth is temporarily transferred from those who have less need of it to those who have more, and the sense in which it stands for methods of making payments and effecting exchanges without the use of actual coin. There is, of course, no necessary connection

whatever between these two. If a bank receives money from depositors and then lends it out again to borrowers against suitable security, the use of coin as a medium of exchange is in no wise diminished and prices, directly at any rate, in no degree affected. Only when a bank passes to its other function and creates notes, bills, or cheques as a means of effecting exchanges, does the influence on prices come in. Mr. Hobson has muddled up the two senses to the extremest point conceivable, and ascribes to causes which have facilitated the development of the first function results which could only arise out of the development of the second. No doubt the creation of suitable security, due to the opening up of new countries, has greatly developed the mechanism of credit in the first sense. But I doubt whether the development in these new countries of credit in the second sense, though considerable, has kept pace with the growth of business and the demand for media of exchange in these same new countries. If, therefore, gold had been mined at the same rate as in recent years, and new countries had *not* been developed as they have been, prices would, I expect, have been appreciably higher than they actually are. The development of South America, for example, since credit in the second sense is less perfectly developed there than in Europe, has retarded the rise of prices, not, as Mr. Hobson argues, hastened it, by affording a fresh source of demand for large quantities of gold. I am inclined to think, therefore, that his main practical conclusion is exactly opposite to the truth.

There are numerous other points of detail which might be worth dealing with if this review were not already so long. I will catalogue some of them:—The confusion of borrowers, who are mainly the entrepreneur class and the holders of ordinary shares, with the poorer part of the community (p. 116); the view that "the increasing proportion of the energy of modern nations that is applied to the distributive, as distinguished from the productive, trades" tends to raise prices (based on the eternal fallacy that only the latter are *truly* productive); the opinion that a rapid introduction of improved industrial methods is socially wasteful because it involves the scrapping of the older plant; and the theory that the rate of interest and the level of prices are but two faces of the same phenomenon, since one is the hire-price and the other the purchase-price of money. This last point deserves a little more attention. "It would be impossible to conceive," Mr. Hobson writes, "the general price for houses to be rising over a period of years while the rents of these houses were falling." This

is so, apparently, because "if motor-cars become cheaper to buy, we know they will become cheaper to hire." Since the rate of interest has risen while the purchasing power of money has fallen, we have a paradox to explain. Mr. Hobson is led to the view that "money has not really a sale-price at all." For the extraordinary theory he builds on this, the reader must be referred to his last chapter.

Belonging to no one race or age more than another, there lives an intellectually solitary race of beings who by some natural prompting of the soul think about monetary theory in certain specific, definite ways, superstitious or delusive, mystically, not materially, true, if true at all. All of these will find their natural instincts expressed here in forms more plausible-topical than they can usually shape themselves. Mr. Hobson has given us the Mythology of Money, intellectualised, brought up to journalistic date, most subtly interlarded (and this is how it differs from the rest) with temporary concessions to reason.

J. M. KEYNES

Luxus und Capitalismus and *Krieg und Capitalismus*. By WERNER SOMBART. (Leipzig: Duncker and Humblot. 1913. Pp. 220 and pp. 232. Each volume 6 marks.)

SOMBART'S studies for a new edition of his *Modern Capitalism* have led him far. So much material has accumulated, not all strictly economic, that he is publishing it in monographs. The first was his *Die Juden und das Wirtschaftsleben*. These volumes are of the same class and workmanship. There is the same immense reading and the same cocksureness in all provinces of knowledge; the unpruned, slangy style that infects a reviewer; the real, yet slightly over-advertised, originality, and the tendency to drive a good notion further than it will go.

The titles roughly indicate the theses, and the sub-title to the first volume—*Liebe*, *Luxus und Capitalismus*—indicates the part of it that is not strictly economic. A central thesis is common to both volumes, namely, that the fashionable connection of capitalism with production for a geographically wide market is not of primary importance in the "early capitalistic" age. The mediæval weapon industry had a wide market, but its industrial organisation was "Handwerksmännig" (*Krieg*, p. 92); so was that of the Yorkshire clothiers of the eighteenth century, whose goods went far and wide (*Luxus*, p. 208); while many of the luxurious industries worked mainly for the local court or metropolis, yet were early organised on capitalist lines (*Luxus*, p. 138).

At the opening of *Luxus* Sombart describes the mixed "feudal-bourgeois" character of West European society in early modern times, a society in which new bourgeois wealth was used to outbid the display and the expensive personal following of the true feudal establishment. Then he shows how the great towns were primarily consuming, not producing, centres before the nineteenth century. Cobbett would have relished his assault on their "tax-eating" and rent-eating populations. He next plunges into "the secularisation of love" and its connection with the growth of personal luxury—first at the Court of Avignon, and so down to Versailles and Hanoverian London. Luxury begets capitalism, and all—or almost all—luxury Sombart would trace back, on one line or another, to lust. This section is a monument of somewhat unsavoury learning. His style—never chaste—here slides down to the level of his theme, and his argument is not always convincing. He has to prove, for instance, that the capitalism of the sugar industry is rooted in woman's love of sweets. Perhaps it is true that the most self-indulgent and "secularised" women eat most chocolate; but in discussing the demand for sugar is it fair to leave out rum?

As he shakes off his erotic obsession the argument gathers weight. The industrial revolution of eighteenth-century England is connected not so much with a growing population as with a more varied and luxurious consumption, and with the growth of a "parasitical" population in London. Sombart shows how many of the most favoured and most capitalistic industries of the age of mercantilism were *industries de luxe*. Silk is an obvious case in point; so is porcelain; so in a great measure is glass. Many similar industries are adduced. He suggests that the more "luxurious" were also the more capitalistic branches of the English wool industry. This suggestion he regards as his own—"die Frage ist, soviel ich sehe, noch nicht bestellt anders" (p. 190). But his references to the literature are wretchedly inadequate. If he had looked a little outside the text-books and the report of 1806, he would have had no difficulty in proving that the most capitalistic branch of the industry in the late seventeenth and eighteenth centuries—that of Norwich—was also the most "luxurious." He would also have found that it depended both on the demand *de luxe* and on a very wide foreign market; since, fortunately, economic history will not adapt itself either to dogmatic generalisation or to dogmatic counter-generalisation. Sombart, as usual, has laid his hand on a true cause whose importance has often been underrated. It would be easy to fortify his

argument, for instance, from the lives of Wedgwood and Boulton. The Soho works made buckles and fancy clocks and all sorts of Brummagem luxuries on a large scale long before they made steam engines. But Sombart is never content with judging a suspected and neglected cause as a member of a gang; he will always treat it, at any rate provisionally, as the sole criminal. After all, that is an effective method of propaganda, and he has plenty of scientific enemies who will arrest the other causes and denounce him as a wrong-headed judge.

In the *Krieg*, as in the *Lurus*, he over-emphasises the novelty of his conclusions and the range of his research, though some of the conclusions are very fresh and very striking, and the research is generally quite wide enough. "The following information comes from the most varied sources," he tells us (p. 47) at the opening of an important section on the English Navy, in which he cites just four authorities, two of them very well-known naval histories and a third Anderson—no great variety after all. The authorities are excellent, and there was no need for more—nor yet for the boasting.

The argument runs in this way: mediæval war consumed free capital and hindered capitalism; yet even mediæval war strengthened the high finance—Jewish, Italian, &c.—while the wars of early modern times, and the taxation and borrowing that went with them, did so still more. National debts were incurred for warlike ends, and so "war made the Bourse"—war and the Jews, Sombart adds, recalling his earlier work. Also war made the "*Teilmensch*," the man-machine, the drilled unit directed by a captain of war, long before just such machines were wanted by captains of industry. In this unholy task, it is argued, war was materially helped by Puritanism, which turned the wayward "natural man" of the Renaissance into the "*Pflichtenmensch*," the Ironside, the ancestor alike of the Nonconformist mill-owner and the efficient "mill-hand." "Puritanische, militärische und kapitalistische Tugenden sind . . . grössten theils dieselben" (p. 29). "Zucht ist das Leitmotiv."

The most brilliant section of the book is the study of the growth of uniformity—including uniform—in the armies and navies of the seventeenth century and its economic consequences. First, men arm themselves; then the State supplies weapons and clothes, standard weapons and standard clothes. You have the first great "*Massenbedarf*." Already in 1603 the English Government is contracting with merchant tailors for 5,000 uniforms. So in the navy with standardised cannon. And these

things are wanted quickly, even ships. You must have organised speed and large-scale operations. The building of one of the great royal ships of the seventeenth century was a gigantic enterprise, absorbing more of the national dividend of the time into this unit of military "plant" than is absorbed in our own day by any single act of production, military or civil. The shipyard of the naval foundry is the first "factory."

It is a pity that Adam Smith did not go a few miles from Kirkaldy to the Carron works, to see them turning and boring their cannonades, instead of to his silly pin factory—which was only a factory in the old sense of the word. And for our economic historians, says Sombart with more than a little 'ruth, "there seems to be nothing but a textile industry where they are trying to uncover the origins of modern capitalism."

Quite apart from its uniformity, the mere origins of the military demand favoured capitalistic methods of supply, and had indirect consequences of significance in the history of capitalism. Round about 1500 no article had such an important international market as copper, because it was wanted for gunmetal. The Fuggers and their allies tried to corner the Venetian copper market in 1498; and all the mid-German capitalists of the sixteenth century were mixed up in copper dealing and copper mining, among them the Höchstetten, who were so closely connected with the mining enterprises of the Tudors. Dr. Scott's researches have prepared us for this; he has shown how closely the rise of that typically capitalistic organisation, the Joint Stock Company, was connected with the military and political needs of the crown. It should be noted, however, by Sombart that the Mines Royal did not flourish greatly on the military demand, and fell back on the making of copper pots and pans.

Where and when the iron took the place of the bronze cannon there was no slackening in the influence of the military demand. The early days of iron-capitalism are everywhere closely connected with gun-making. For instance, the first Scotch concession for a blast furnace and foundry (1686) has in view primarily the "casting of balls, cannons, and other such useful instruments." And Sombart reminds us that coal was used successfully in foundries long before it was applied to smelting, quoting Beck's *Geschichte des Eisens* in support of the view that gun-casting was the great stimulant of improved technique in the foundry.

It is easy to show how standing armies affected the growth of capital cities, especially in Germany. England does not greatly help the argument here. Nor would it, I think, be possible to

argue, in the case of England, as Sombart argues for Germany, that the commissariat demand stimulated the *landwirtschaftliche Grossbetrieb*. He connects with it the rise of the *Rittergut*. Perhaps a study of our commissariat during, say, the Seven Years' and the Napoleonic Wars, might yield something to the purpose. For Germany the argument is strengthened by the supplementary contention that the export corn trade, in which it is well known that the N. German *Rittergutsbesitzer* were so long interested, was itself a military product, at least in part. The Dutch Baltic corn merchants were largely concerned in army contracts, and when Louis XIV. prepared to attack Holland in 1672 he bought his corn at Amsterdam (p.141).

England and the continent supply abundant evidence of the accumulation of capital in the sixteenth, seventeenth, and eighteenth centuries by army contractors, mostly Jews. Among them one may quote A. F. Carvajal, "the great Jew" contractor for the Parliamentary forces, and Sam Oppenheimer, "Kaiserlicher Kriegssoberfaktor und Jude," the business manager of the campaigns of Prince Eugene.

In many countries the very foundation of a more or less capitalistic cloth industry was due to the demand for army cloth. Sombart elaborates this well-known fact perhaps rather more than is necessary, but, of course, it is important to his argument. In the most important case of all, that of England, he allows, however, that the military influence was inconsiderable, although he is able to establish the existence of a considerable export trade in army cloths during the eighteenth century; but here, as in the *Luxus*, his treatment suffers from imperfect knowledge. Perhaps German scholars will be able to say the same of his treatment of German history, as they have done so successfully in connection with the mediæval part of his *Moderne Capitalismus*. But, as is always the case with Sombart, when all criticisms have been made and all reservations entered, there remains a great body of curious fact and exciting argument that has merits beyond those of many more impeccable treatises.

J. H. CLAPHAM

The English Factories in India: a Calendar of Documents. By WILLIAM FOSTER. 1634-1636; 1637-1641; 1642-1645. 3 vols. (Oxford: at the Clarendon Press. 1911, 1912, 1913.)

THESE three volumes, the third of which has just appeared, continue the valuable series of documents illustrating the history

of the English factories in India from their origin, and bring the material down to the year 1645. An apology is due to Mr. Foster, who has been responsible so far for the whole issue, for the belated notice of the two volumes published in 1911 and 1912, but the recent publication of another instalment offers an opportunity to "review" the three volumes together. Not that "reviewing" in the ordinary sense of the term is really possible. Original material of this kind cannot be discussed adequately within the limits available in these columns; and, indeed, Mr. Foster, by his explanatory Introductions to each instalment which summarise the contents so carefully calendared, and which draw the attention of the student to the noticeable features in the documents themselves, has to a large extent forestalled the reviewer and done his work for him. It is, indeed, most satisfactory that the editing continues to be in Mr. Foster's hands, and we hope it long will be so, for the accuracy, precision and completeness which the previous volumes showed are not less patent in this last instalment. The editor very properly acknowledges his obligations to Mr. Bull for the Indexes; as every student is aware, an adequate index to collections of original documents is not only indispensable, but may be no less valuable than an editor's Introduction. Mr. Bull's industry and accuracy are just what is required to get the full benefit from Mr. Foster's lucid and careful prefaces.

These three volumes contain about 662 separate items; with two or three trifling exceptions they are drawn from the India Office archives. Neither the Public Record Office nor the Indian Record Offices contribute to the collection. It is worth noting in particular that these contents "break ground which has been practically untouched by previous workers," as the editor notes; for with the termination at 1634 of Mr. Sainsbury's *Calendar of State Papers, Colonial, East Indian and Persian*, Mr. Foster is publishing original documents, hitherto only available in their MS. form in the India Office archives. At the same time, it is due to the editor to point out that as everyone who has used his *Founding of Fort St. George* (published in 1902) is aware, some of this new material had already been worked up in his own researches. Mr. Foster has, in fact, robbed himself of the title of being an original pioneer, and only left himself the opportunity of printing and setting the Madras material in a wider context by showing its relation to the affairs of the Company as a whole.

No one would pretend that these volumes provide "interesting reading"; a cursory study would probably provoke from a general reader the criticism of Sir Walter Scott's farmer friend whom he

found turning over Johnson's Dictionary, and who replied to an obvious question that "the stories were unco various and unco short." These documents are for students who will go to them for different purposes - the history, development, and difficulties of joint-stock enterprise, the details of commerce and trade between West and East, the rivalry of different European nations in the Far East, the political and commercial motives and objects of policy, the characteristics of English, French, Portuguese and Dutch in organising foreign trade and trade-settlements, the light thrown on Indian history available from non-Indian sources (to enumerate but a few of the broad questions to which answers are required)--but for all of these and many more there is plenty in these seven hundred calendared items to justify and reward patient investigation. And however "dull" the documents at first sight appear, the human interest flashes on the investigator in the most unexpected manner. Human nature may be avowedly expelled from bills of lading or commercial reports, but it creeps back and will out, and not infrequently in a very vivid way. Numerous examples from these three volumes could be given. Let one suffice: it is taken from a report by Andrew Trumball on the managers at Madraspatam (Sept. 18, 1644).

"Mr. Thomas Winter, another of your factors on the coast, is by estimacion worth 80,000 ryales. . . . He hath married his gentlewoman to a souldier; by whom hee had two children, one of which came into England in the *Mary*. And Mr. Day and hee are very well versed in gameing, and noe day comes amiss to them for that exercise. Mr. Henry Greenhill, another of your factors on the coast . . . keepeth a gentlewoman. . . . At the christening of his second childe there was shote off 300 brass bases, with three vollyes of small shote of all the souldiers in the castle and 13 gunns from the fort; but the powder was paid for by him. . . . These foure gentlemen are all sworne brothers; and when they perceive they may benefitt themselves in any project, they passe an oath one to another to prosecute their intendments and not dissent one from another until their ends be obteyned."

The political framework of these trying years in the Company's affairs is adequately, if briefly, sketched in the editor's introductions, where also the slow extension under numerous difficulties of the Company's operations can be pieced together. A study of the documents in detail leaves at first the impression that the obstacles of internal competition at home, such as the formation of "Courtier's Association," which threatened to be a dangerous rival; the vacillating and half-hearted policy of the

Crown and its government (culminating in the Civil War, the first years of which are covered in the last volume); the relations with the various Indian rulers; and, above all, the formidable opposition of the Dutch, must in the long run prove fatal to the success of the East India Company. It is eminently characteristic of our nation and the methods and temper of our countrymen that their letters and reports are saturated with pessimistic criticism, discontent, grumbling, and dissatisfaction, and that the evidence of progress has to be sought for between the lines of the recorded pessimism. But if an impartial audit of the position be taken it is clear not merely that the Company was holding its own, but (as the foundation of Fort St. George shows) was developing on sound lines in many directions. There were, of course, copious mistakes; experience was being bought, and sometimes dearly; ships were lost, agents proved unsatisfactory, openings for trade were tried and found impossible or too expensive. Yet after the most liberal discount for what had to be "written off" has been made, the Company was still there and it was moving. The dogged tenacity with which the ground won was maintained, and the restless and fertile resourcefulness with which new developments were planned and tried, lie at the back of these three volumes of details, frequently wearisome and monotonous, and suggest obvious reflections and inferences. Whatever the English Government felt, Englishmen meant to retain their foothold in the East, and they could only do so, as the men on the spot discovered, by expanding the sphere of their trade, influence, and power. Discontent, the outcome of a determination not to stand still, is a good basis for ultimate commercial success.

These volumes bring us to the critical years of the Civil War: and they close an epoch. There are indications that the French have discovered the East; but as yet they are not seriously in the minds of our traders. The day of Portugal and the Portuguese is really over. The enemy and rival are Holland and the Dutch. As Mr. Foster succinctly puts it: "Not only in the Far East but in Arabia, Persia, and India itself they (the Hollanders) easily outdistanced their English rivals, alike in the number of their ships, and the extent of their resources." Indeed, a political prophet, ignorant of what was to come in Europe, and acquainted only with the material calendared here as far as 1645, would have been justified in predicting at this stage that the future lay with Holland. Mr. Foster's next three or four volumes will probably begin to reveal that Rocroy and Naseby cannot be ignored even

by students absorbed only in the isolated story and complicated details of the English factories in India.

One small suggestion may, finally, be pressed upon the editor. Could he not number his volumes? We have already seven or eight in this valuable series, and hope he will give us many more. But reference is very difficult and cumbrous at present, because the sole method of differentiation in titles lies in the years covered by each instalment, *e.g.*, "The English Factories in India, 1612-1645." If a numerical sign could be added to the title the boon, a very easy one to grant, would much facilitate reference and use. The next volume in that case would be "VIII., 1645— —." The advantage is obvious; the additional trouble would be practically nil.

C. GRANT ROBERTSON

The French Revolution of 1848 in its Economic Aspect. Vol. I. : LOUIS BLANC'S *Organisation du travail*. Vol. II. : ÉMILE THOMAS'S *Histoire des ateliers nationaux*. With an introduction critical and historical by J. A. R. MARRIOTT. (Oxford : At the Clarendon Press. 1913. Pp. 284 and 395.)

"THIS edition has been prepared primarily for the students in the Honour School of Modern History in Oxford." It would, perhaps, be asking too much of the trained economist that he should peruse these volumes, for his wants are amply met by curves and equations and excursions into latter-day statistics. But to those untrained economists who can tolerate history the documents here published are of surpassing interest. When the student has finished them, he will ask hungrily for more; and he may be directed to two further volumes, published in Paris in 1849 (copies of which can be consulted at the Goldsmiths' Library in the University of London) : "Le Droit au Travail au Luxembourg et à l'assemblée nationale," with an introduction by Émile de Girardin.

The Right to Work in France, like the Right to the Whole Produce of Labour in England, was in its day a great reality to the working classes of that country. With the introduction of the labour exchange and insurance against unemployment, it is perhaps not likely to reappear as a formidable cry here; but so recently as 1905 a Bill embodying the principle of this right, the Unemployed Workmen Bill, was introduced into Parliament at the instance of prominent members of the Labour Party. The events of 1848, therefore, have still some interest for the student of modern affairs.

The National Workshops, which Thomas directed and whose history he here narrates, were justly repudiated by Blanc, as the offspring of his Scheme for the Organisation of Labour. Nevertheless, but for Blanc the National Workshops would never have come to be. In his Scheme he promised Utopia : at his instance, on February 25th, 1848, the Provisional Government proclaimed the Right to Work and the opening of workshops for all who were without work. Even if the Government had genuinely wished the workshops to succeed, they would still have been of the nature of relief works, and as such entirely obnoxious to the vision of the multitude.

Emile de Girardin's first volume, relating the proceedings of the Government Workers' Commission at the Luxembourg, confirms this opinion. Here Blanc had had his chance to get things done; and what were these things? Reduction of the hours of work by one hour, arbitrations, abolition of task work- and co-operative productive societies of working men. These were good things, but they fell far short of the millennium, and it was the millennium which his Scheme projected. We may find the sequel of it all either in the little co-partnerships which gradually died out in Paris in the 'fifties, or in the debates of the newly elected National Assembly (de Girardin, Vol. 2), when the Right to Work was rejected from the Constitution in favour of a cautious declaration of the State's *duty* to "assure by assistance the existence of all needy citizens, whether by procuring work for these needy ones, or by giving, in the family's default, succour to those incapable of work."

The Editor's sketch of these events is very good, but he makes (p. xix) an unfortunate slip in three times writing Morellet, the free trader and friend of Turgot, for Morelly the communist; and he is equivocal, as it seems to us, in his scattered allusions to the origins of Socialism.

"Thus far had French Socialism gone before the outbreak of the French Revolution" (p. xix), says the Editor in the paragraphs headed "Morellet (*sic*), Mably, and Babeuf"; and further on (p. xxvi), "A similar fate attended the Owenite communities founded on Fourierite principles in England." The Owenite communities were not founded on Fourierite principles, but on Owenite principles, and there is ground for believing that the words Socialism and Socialists were first applied to the teaching and disciples of Robert Owen. Holyoake, in his *History of Co-operation*, I., 115, says: "For thirteen years now [1831-44] co-operation has to be traced through Socialism. Store-keeping

had in many instances failed. . . . Grand schemes were revived. This state of things came to bear the name of Socialism." And again, I., 144: "The members of the Grand Society of All Classes and All Nations wisely refused to be called Owenites, although they persisted in their affection for Mr. Owen, whom they designated at the same time their 'social and right reverend father.' At the Manchester Congress of All Classes of All Nations [1837] . . . they determined to call themselves Socialists." And in the diary of William, brother of Robert Owen, published in 1906 by the Indiana History Society, there occurs under the date "Nov. 21, 1824," the following entry: "Mr. Loyd after dinner . . . returned with us [*i.e.*, W. and R. Owen], and we read to him the proposals for a socialist community." Louis Reybaud, in the Preface to his *Socialistes Modernes*, dated 1856, says: "Voici vingt ans bientôt qu'au début de cette suite d'études, j'eus le triste honneur d'introduire dans notre langue le mot de *socialiste*." How the British Government came to be apprised of the existence of Socialism is indicated by an entry book of the Home Office marked "1840—Socialists," containing copies of letters to incensed prelates who had complained of irreligion and blasphemies at Queenwood and elsewhere.

It may be said, of course, that this is a mere dispute about words. But if that be so, there is no reason why we should not trace Socialism back to Plato, through Sir Thomas More, the Diggers, and all the Utopians and makers of communities. It may be added that none of the writers known as the Ricardian or early English Socialists call themselves by this term, or even, so far as we can find, use it.

Finally, on p. xlviii., the Editor allows himself the following cryptic utterance: "In the sphere of distribution Co-operation has already to a large extent achieved it [victory], and has achieved it in fair competition. That it may win an equal measure of success in the infinitely more difficult sphere of production is the sincere hope of many who have scant sympathy with the principle of State Socialism; provided always that the victory is won without infringement of the rules of the competitive game." To what does this refer? If to the workers' co-partnership societies, then the hope, though sincere, is utopian. If to production by the wholesale federations of co-operative stores, then the scanty sympathisers with municipal trading will one day be grievously disillusioned. C. R. FAY

Histoire Financière et Économique de l'Angleterre (1066-1902).

By ÉTIENNE MARTIN. 8vo. Tome Premier, pp. xii + 512.

Tome Second, pp. 642. Paris : Félix Alcan. 1912.

THE author of this considerable work published some years ago (in 1905) a careful and instructive study of the direct taxes levied in England by the central Exchequer and by local authorities. The sequel of that successful beginning of fiscal inquiry has grown in scope and size until in the two volumes before us, containing together about eleven hundred and fifty pages, he attempts a more ambitious, comprehensive plan. His present aim is not merely to review the entire financial history of our country across the space of the eight centuries and a half which have elapsed since the Norman Conquest, but also to include very properly in that long conspectus an account both of the specially economic and of the more generally political surroundings by which fiscal change has been attended, influenced, and, in part at least, determined.

Two further characteristics in his treatment of his vast theme require some notice. His narrative ends with 1902, although a description of actual existing arrangements had belonged to his original scheme, forming the appropriate appendage to the preceding portrayal of the past. But as he significantly remarks, employing so inapt a simile, the "orientation" of British finance appears to have been altered so fundamentally during the last few years that the rapid and numerous changes wrought or impending make a distinct breach in the continuity which had before prevailed. Together with the accompanying disturbance, which, as he states, has affected the very foundations of our ancient Constitution, they mark the opening of a new order of affairs; and they amount to an upheaval ("*une bouleversement*") of former traditions.

The other peculiar feature of the book, which is perhaps more open to objection, for impairing the unity of its design, is the Introduction, in which the financial history of the writer's own country under the "*ancien régime*" is vividly and shortly sketched. But the digression, as it may seem to English readers, supplies the reason, or furnishes an excuse, for some instructive contrasts between the methods pursued and the results achieved on the opposite sides of the Channel. These may well be pleasing to us, for they offer the attractive incense of genuine admiration; and they may prove not uninteresting to the author's compatriots, whom, in his own words, he bears in mind throughout his task, endeavouring for their benefit to "point the moral" of his tale.

M. Martin, then, approaches his subject from the position of an appreciative foreign observer of our record and our institutions. In the *résumé* with which, ending his large enterprise, he finally lays down his pen, he selects for special notice and approval certain traits of our past financial legislation and administration. The one is that, while in his own country the wish and power of the King have sufficed to impose taxation on the subjects, English taxes have required and received the assent of the taxed, or of their representatives in Parliament. The other is the fidelity with which, at any rate since 1688, we have recognised the binding and enduring obligation of the debts we have contracted. These circumstances obtain, as they deserve, the praise of M. Martin, who nevertheless feels some apprehension, as becomes perhaps a believer in free trade, such as we suppose him to be, that that simplicity of our customs tariff, which also stirs his admiration, and, indeed, excites his envy, will possibly not be preserved intact in the future. To the two causes, however, mentioned above the success of our financial evolution is ascribed by him. Whether M. Martin be correct or not in the peculiar stress thus laid on these conditions alone, there can be little doubt that he has succeeded in writing a story which is at once readable and informing. The remarks, indeed, of an acute judicial mind like his, which can bring the sympathetic detachment of an external witness to bear upon the study and interpretation of English events with their antecedents, of forces and the consequences in which they issue, must always be of interest, and may often prove of use, to English readers. In that office our present author has, we think, both in this and his previous work, attained a great measure of success.

But we go further; for we are confident that we can affirm, without fear of contradiction from English students, that he has done more than achieve this important result. His book bids fair to take its place in that class of valuable contributions to the elucidation of English economic history for which we have of late been more than once indebted to the competent and careful learning of French writers. Like M. Mantoux's *Industrial Revolution*, it merits, as it will reward, the close, alert perusal of English economic teachers, who will find in it what they cannot, we think, discover in such a shape elsewhere. As the area which M. Martin embraces is much more extensive, the signs of new research are not perhaps so manifest on his pages as they are in M. Mantoux's monograph; but he has by no means limited his investigations to those recognised general histories to which he pays a due meed

of acknowledgment. He has examined also the first-hand evidence contained in a documentary form in a number of official publications, and he has known how to utilise these original sources with discrimination and effect. So far as we have been able to test his writing, he has produced a narrative which is not only lucid and pleasing, but is also trustworthy and authoritative.

The general plan of his treatise, dividing his account into three main periods, the first stretching from Magna Carta to 1688, the second extending from the Revolution of that year to the Reform Bill of 1832, and the third and last comprising the concluding seventy years from 1832 to 1902, is, we think, happily conceived; and the detailed execution of the scheme in each successive section has been accomplished with corresponding care and ability. The tale is sufficiently supplied, but is not overburdened, with the illustrative facts and figures given; and the drift and purpose are made clear without any undue pressing of particular individual views. To select examples, the treatment of the Debt, which rises into prominence in the second part, and the handling of the income tax, which is conspicuous in the third, are at once judicious and suggestive. M. Martin evidently knows how to secure and retain the interested attention of his readers.

Accordingly, we believe that in existing circumstances his book may be said to fill worthily a conspicuous gap. As he remarks, Dowell's *History of Taration and Taxes in England* was published a quarter of a century ago, and is out of print; and Mr. Sydney Buxton's *Finance and Politics* (to which, however, we have not found a reference in M. Martin's footnotes) deals only with the single century from 1783 to 1885. The accounts of English financial evolution contained in F. W. Maitland's posthumous *Constitutional History of England* (to which also there is no allusion in the present work) must be considered to be scattered and fragmentary, though they are too in a sense, perhaps, the most connected and consistent, and the most stimulating and illuminative, which have been hitherto available. Students have therefore been compelled either to collect for themselves detached passages from those general economic histories to which M. Martin recognises his own debt, or laboriously to piece together separate episodes or chapters of financial history, such as those marked by Gladstone's famous Budget speeches of 1853 and 1860, or the descriptions of particular taxes, like that furnished two years ago by Professor Seligman's brilliant investigation of the English income tax in his admirable study of that fiscal instrument.

Now M. Martin has attempted and achieved the work of compilation which was needed, and we offer him our hearty thanks.

L. L. PRICE

The Economic Utilization of History and other Economic Studies. By HENRY W. FARNAM. (New Haven: Yale University Press. 1913. Pp. viii + 220.)

INTO this "little volume," as it is described by the author, no small amount of stimulating suggestion has been introduced. Professor Farnam's *Studies* were published separately, but "represent one point of view"; and the last nine of the dozen chapters of which the brochure consists are an "application" to labour legislation, to business organisation, and to charity, of the "scientific methods" advocated in the opening three. What, then, are those methods? They are, in effect, according to the title of the essay, the "utilisation of history" by the trained economist. It is in this way that the Yale professor holds that the "experimental method" approved and recommended by some economic writers of great fame in the past like Jevons can be most fittingly and most advantageously employed. The special value of his own fresh treatment of this theme consists in the illuminating skill with which he demonstrates the possibilities afforded in peculiar measure by the particular conditions of the United States for the scientific use of this potent instrument of economic study. Experiments are now, as they have been, continually made for the benefit of the economist; but mere observation or bare description is not enough for his purpose. Analysis is needed. The great importance, however, of economic interests in the history of America, the free play given there to economic forces, and the diversity introduced by the varying practices of the several States of which the Commonwealth is composed, render that country a very favourable sphere for the application of the method as the professor conceives it. The experiments have happened within a limited period of time; they have been conducted in a circumscribed area of space, and they have concerned a homogeneous people. Consequently, the essential condition for success of "other things remaining the same" may be considered to hold good. History, then, Professor Farnam would regard instructively from this standpoint as an economic laboratory, and here he would even find a wholesome corrective for the facile dilettantism which may have been brought recently into economic study through its new popularity. The application of the principles thus established at the outset is

made no less happily in the succeeding chapters; and on every page, or nearly every page, Professor Farnam stirs our flagging notice by some luminous *aperçu* or sets us thinking by some stimulating comment. We have read of late few books which yield so ample a reward for their perusal.

L. L. PRICE

*Die Grundlagen des ökonomischen Liberalismus in der Geschichte der englischen Volkswirtschaft.*¹ By DR. HERMANN LEVY. (Jena: Gustav Fischer, 1912. Pp. vii+96. Price M. 3.50.)

THE title of this book does not readily indicate the scope of its enquiry. The *Liberalismus* that Prof. Levy has in view is not to be confused with the programme of any political party in the present or with the teachings of the Manchester School of Economists at the beginning of the nineteenth century. On the contrary, the book aims at opening up that period of English history which may be described as a period of industrial preparation and probation, namely, the seventeenth century, with its civil wars and revolutions which transformed State, Church, and Society. It was in these times that the character of the nation formed itself. With the acquisition of civil and political liberty the nation not only shakes off the fetters of the feudal times, but breathes another spirit, and has a new philosophic-economic outlook on life. But for the achievements of this century, Prof. Levy doubts if the way would have been paved for the subsequent economic development of the eighteenth and the nineteenth centuries, which secured to England industrial supremacy when other nations were grappling with problems which she had solved in the struggles of the seventeenth century. Prof. Levy brings out the main facts clearly, and is able to show the bearing, which such liberal measures as free immigration of persecuted foreign Protestants and Jews and the proclamation of tolerance, had on English industrial development.

The book is useful in so far as it directs attention to these questions, but it may be doubted if all the *Grundlagen* of English economic *Liberalismus* lie exclusively in this century. By singling it out, he is laying himself open to the same kind of mistake as that against which he specially warns us, namely, the mistake of thinking that the Industrial Revolution in England began with

¹ Since the above review was written, this book has been translated into English under the title *Economic Liberalism*, and published by Messrs. Macmillan, price 4s. 6d. net.

the invention of new machines and appliances. Surely an account to be thoroughly philosophic should take into consideration not only the incidents of a particular period of time, but all the peculiar circumstances of England, and, above all, the character of her people. That character was not wholly formed in the seventeenth century, though some features of it were intensified, as Prof. Levy points out with rather over-emphasis, in the case of the Puritans. However, this part of the book is suggestive and illuminating.

Printed words die hard, and the views of some of the hasty and dogmatic parasites of Adam Smith and his followers receive some notice here—how they transformed a part of Cultur-Liberalismus into something that was not any more a matter of feeling, a thing that was part and parcel of the individual, but was rather a science, whose laws held true for all times and all stages of development with the rigidity and accuracy of mathematics. What, says the author, is one to think of such men and their so-called science when neo-Mercantilism and Socialism flourish so lustily to-day?

In the concluding portion of his book Prof. Levy shows the England of to-day by way of contrast with the Individualistic England whose beginnings lie in the seventeenth century. The country is swaying away from extreme Individualism to forms of social, collective action, which are making it a Social State; in fact, a Bureaucratic State. Is not the trend of recent social legislation altogether different in its conception of the principles, aims, and objects of the State from that which has hitherto guided it for the last three hundred years? Has not the scope of the economic functions of Government been widened, necessitating the perfection and development of its machinery and bringing into prominence the Official, who is the central figure in the Bureaucratic countries of Europe? On the note of these questions the author concludes. Perhaps he has taken, sometimes, the words of politicians too seriously.

L. K. HYDER

An Economic Interpretation of the Constitution of the United States. By CHARLES A. BEARD, Associate Professor of Politics in Columbia University. (New York: The Macmillan Company, 1913.)

MUCH might be said about this book. For one thing it is an important sign of national and academic movements now stirring in America that a Professor of Politics should essay an

economic interpretation of the Constitution. The author claims, and may justly claim, that he has made a survey of the constitution-making forces at work in 1787 from an entirely novel point of view. Not a word about Montesquieu, not a word about borrowing the substance and avoiding the idiosyncrasies of the British Constitution. Nor is this to be regretted. What may be called the idealistic methods of interpretation have too long had the field to themselves. Blackstone, once not merely an historical figure in English jurisprudence, gave place more than a generation ago to more realistic exponents of the British Constitution. The change in America has been longer delayed. If we may judge by Professor Beard's book, it is likely to be more thoroughgoing.

The *rationale* of the book lies in the two propositions: (1) "The Constitution was essentially an economic document based upon the concept that the fundamental rights of property are anterior to government and morally beyond the reach of popular majorities"; and (2) "the Constitution was the work of a consolidated group whose interests knew no State boundaries and were truly national in their scope." It is on the whole admirably planned, fair and moderate in statement, and, within certain limits, convincing. Professor Beard carries the economic interpretation of society further than most economists would care to do. Too much emphasis is put on the temporary economic interests of the moment. The Constitution was not the work of abstract publicists creating political society *in vacuo*, but their work has lasted for more than a century with few amendments, in spite of the most far-reaching social and economic changes. It is well to be reminded again that Whig principles were not the monopoly of the English aristocracy, and that in certain of their implications they were shared by thinking men everywhere, and could be engrafted on a republic as well as on a monarchy. But Whig doctrines were not exclusively economic. If property required to be specially safeguarded, so did personal freedom, religious liberty, and other "rights." (Compare Story's judgment in the famous case of *Wilkinson v. Leland*: "The fundamental maxims of a free government seem to require that the rights of *personal liberty and private property* should be held sacred.") It is not enough, it is not a very satisfactory method of proof (see Professor Beard's fifth chapter), to make Franklin, Hamilton, Washington, and the other framers of the Constitution stand and deliver their pass-books after the modern style. Their investments, whether in land or personalty, are of subordinate import-

ance compared with the effect on them of the intellectual and political atmosphere of their times.

Many interesting questions are incidentally raised which Professor Beard may subsequently attempt to solve. What was the size of the landless wage-earning class in America at the Revolution? Does he not over-estimate the extent of the manufacturing interest in 1787? And, if the anti-Federal tendencies had won the day, would not their victory have been very short-lived?

W. H. PRINGLE

Vers le Salaire Minimum. By BARTHÉLEMY RAYNAUD, Professeur à la faculté de droit de l'Université d'Aix-Marseille. (Paris: Recueil Sirey. Pp. xi+518. Price 12 fr. 50.)

MUCH water has flowed beneath the bridges of the Seine since the time when, in response to the plea, "*Il faut bien que je vive*," statesmen and philosophers could quote with equanimity, or even with approval, the retort, "*Je n'en vois pas la nécessité*." Changes in industrial conditions, in the conception of State functions and organisation, and in the political centre of gravity, have given rise to the idea that society should in some measure secure to its members a minimum standard of life. From this idea has developed the claim for a minimum wage; and with this claim, and its practical realisation, M. Raynaud's book is concerned. After considering the ethical, juristic, and economic theories which seek to justify the ideal of the minimum wage, the author describes in detail the extent to which this ideal has been realised and the methods used, concluding with a statement and criticism of current objections to the minimum wage, an analysis of the forces making for its attainment, and an exposition of the fundamental and necessary conditions for success.

It is remarkable that a claim so widespread as that for the minimum wage should rest upon such a narrow theoretical basis. The driving force of the movement certainly does not proceed from the theoretical views considered by M. Raynaud—that of Roman Catholicism as epitomised in the bull *Rerum Novarum*, of Socialism as expounded by St. Simon and Dr. Menger, and of "Social Utilitarianism" represented by Mr. Sidney Webb. The explanation of this difficulty is suggested, but not developed, later in the book. The movement for a minimum wage had its origin in a strong but incoherent feeling among workpeople that it is unjust for wages to be so low as not to allow a man to live and support his family. Then "the theorists came upon the scene,

and sought to state with precision what may be called in Sorel's phrase, the 'myth' of the minimum wage." It is much to be regretted that M. Raynaud did not give more prominence to this suggestion. As the book stands, existing schemes and legislation seem to have no relation to men's opinions. No adequate explanation is given of why and how the movement towards a minimum wage has taken its past course and achieved its present position. Yet not only the importance of the movement, but its very form, are largely due to the development of working-class opinion. For example, the abandonment in 1893 of the miners' demand for profit-sharing by means of a sliding scale, in favour of the claim for a living wage, was the effect and cause of important changes in working-class views, and has deeply affected subsequent legislation; and the progress in Great Britain and the Colonies, compared with that on the Continent, towards some form of minimum wage, is probably in part due to the opportunist character of the English labour movement under the influence of trade union ideals. The more logically complete programmes of the French and German Socialist organisations do not give great prominence to the minimum wage, which is but one of many demands.

M. Raynaud's description of the existing machinery for the realisation of the minimum wage is detailed, accurate, and lucid, with ample reference to authority. Two main views hold the field. First, that no employer should be allowed to pay less than a wage which would secure to the workman the necessities of life. This may be called the "subsistence" minimum. Second, that the wage paid in return for a given amount of work should not fall below a certain minimum level. This may be called the "fair wages" minimum, the establishment of which M. Raynaud regards as the principal function of the bargain between organised workpeople and employers. On the basis of the collective bargain rest other methods of attaining the same object. The fair wages clause in Government and municipal contracts imposes the obligation to pay the wages normally paid by "good" employers in the particular industry concerned; the law in Germany and Switzerland which allows labour contracts to be annulled on the ground that they are "harsh and unconscionable" has in view the weak bargaining power of the individual workman; and the work of trade boards and arbitration courts is largely intended to prevent payment of a lower rate of wages than are in fact paid by "good" employers, or would be paid were the workpeople organised. All these methods of regulating wages are directed towards securing a "fair" equivalence between wages and work done, in the

absence or impotence of a trade union. This aspect of the minimum wage is clearly shown in M. Raynaud's discussion of English legislation. The prime characteristic of the machinery set up by the Trade Boards Act M. Raynaud holds to be that it is "supplementary and complementary to private initiative. It possesses as little as possible the character of an obligatory and compulsory law—*elle propose plus qu'elle impose*." In the author's opinion the working of the Act has been beneficial, for "though it may be premature to assert, save in the case of the chain-making industry, that there has been a general rise in wages, it is at least possible in face of the movement towards grouping and association which the Act has inspired, to ascribe to it an important and valuable success, a probable guarantee of final success." In his brief discussion of the Coal Mines (1912) Act, M. Raynaud again emphasises that the machinery set up rests on the basis of conciliation and consent; but by neglecting the distinction pointed out by Professor Pigou between the two types of "fair wages" minimum, one of which seeks to equalise the efficiency wages paid to different people at the same time, and the other to equalise the efficiency wages paid to the same people at different times, M. Raynaud fails to mark an important difference in the character of the Trade Boards of the 1909 Act, and the District Boards of the 1912 Act.

Though existing machinery and legislation is mainly directed towards securing the "fair wages" minimum, the conception of the "subsistence" minimum has, nevertheless, had considerable influence, notably in the case of the wages of State employees, and the decisions of the Australasian Arbitration Courts. To the latter, however, M. Raynaud pays little attention. This is a serious omission, for the work of the Australasian Courts is at present the only example of direct and far-reaching control of wages by the State, and study of their judgments would throw much light on the difficulties of such control and ways of meeting them. In New Zealand the tendency has been to reject the idea of fixing wages on a profit-sharing basis, and to base the decision of the court on the cost of living, the nature of the work, and the ability of the employer to pay the wages claimed. The policy of the Commonwealth arbitration tribunal, however, as declared by Mr. Justice Higgins, regards a minimum wage based on the cost of living as sacrosanct, and refuses to take into consideration the fact that payment of such a wage may cause the employer to close his works.

In the concluding part of his book M. Raynaud writes as a

convinced supporter of the minimum wage. He fully realises, however, the serious difficulties which are likely to be encountered, and refuses to entertain as an ideal the establishment of the subsistence minimum, on the ground that it is difficult to ascertain what this minimum should be, and that its enforcement would often drive employers out of business. M. Raynaud, therefore, pins his faith to the ideal of the "fair wages" minimum, the extensive realisation of which depends upon the growth of collective bargaining between employers and employed, the function of the law being to facilitate the making and enforcement of collective agreements, and to supplement them where necessary by the establishment of Trade Boards. To those who accept the present basis of society as desirable and likely to continue, M. Raynaud's views will recommend themselves. But to the increasing numbers who believe in no remedy for social ills but social reconstruction, M. Raynaud's conception of a minimum wage will appear an aim of but doubtful value : and it is likely, therefore, that under their influence, future action will look more and more towards the establishment of a subsistence minimum as a first step towards communism.

M. Raynaud's treatment of the objections to the minimum wage as a means of social betterment is by no means convincing. Against some of the more obvious criticisms, such as the likelihood of evasion and the hardship upon the old and infirm, M. Raynaud makes a good case. But he does not state or meet the capital objection that the establishment of a minimum wage, by changing the direction in which productive resources are applied, may lead to a diminution in the National Dividend, which may directly injure the working classes. If it be assumed, as M. Raynaud tends to assume, that the establishment of a minimum wage would merely result in a transference of wealth from employer to employed, and at the same time even increase the workman's efficiency, the objection falls to the ground. But these assumptions will by no means always be justified, and when they are not the results of the minimum wage may be worse than the evils it is designed to cure. This is no argument against the application of the minimum wage in particular cases, but it seems conclusive against regarding the minimum wage as an infallible and universal remedy for all social ills.

W. G. CONSTABLE

Syndicalism and the Co-operative Commonwealth. (How we shall bring about the Revolution.) By EMILE PATAUD and EMILE POUGET: translated by CHARLOTTE AND FREDERICK CHARLES. (Oxford: The New International Publishing Company.)

To those fatigued with the mythologies of M. Sorel, this is in many ways a refreshing book. At last we are told with some approach to definiteness what two, at least, of those who profess and call themselves Syndicalists really do want, and how they propose to get it. It is not, indeed, clear how far the authors' opinions are to be considered representative. The translators content themselves with a mild protest against the description of the suffrage movement as a childish hobby, and the authors' too ready acceptance of the latest medical fad of serum treatment; but Tom Mann and "grand old comrade Kropotkin," both of whom contribute forewords, appear to reserve the right to differ on more important points; and Will Dyson, who contributes the rather flamboyant drawings, has clearly dreamt dreams and seen visions on his own.

The first part of the book, written in a staccato and melodramatic narrative style which recalls Mr. Guy Thorne's *When it was Dark*, describes the mechanism of the Revolution. The most interesting point is the stress justly laid on the importance of capturing the army and the instruments of war. The authors, indeed, are at some pains to conceal the suicidal effects of the general strike *per se*: from the description of the "spiking" of the ovens on p. 22 one would suppose that only the capitalist class consumed bread, and the only serious efforts to avert harmful reactions upon the worker seem to have been made by the dustmen, who continued to clean the streets in the working-class districts. But the authors are, nevertheless, alive to the truth that it is only by a rapid and forcible capture of the accumulated stocks in the hands of the capitalists that the superior staying power of the latter can be overcome.

The second portion of the book, dealing with the subsequent reconstruction of society, is considerably the more interesting. The management of each trade, as we know, is to be in the hands of the trade union. In this connection one cannot refrain from noting the naïve tributes paid here and there to the effete and idle *bourgeoisie*, deserters from whom "came over quite frankly to the Revolution" and put their "knowledge and experience" at its disposal; and in whose offices numbers of "valuable documents

and important statistics" were discovered and made use of by the Syndicates.

But the instruments of production, though managed, are not apparently in any sense to be owned by the workers in the trade. The system of distribution proposed is one of pure Communism for articles of necessity, including railway transport and house-room, combined with an equal remuneration in "labour-notes" to be used in payment for articles of comparative luxury. It is left entirely to the syndicates in the luxurious trades to change their occupations in accordance with the movements of demand as evidenced by the use of these notes. It is gratifying to learn that the goldsmiths and the jewellers set a good example in this respect, but one looks in vain for a guarantee that it will be followed.

Each trade is to be allowed a blank order on the trades making the instruments of production—a system which seems hardly likely to conduce to economy of management. As to agriculture, the large farms are to be organised at once on a Syndicalist basis, while the peasant proprietors are to be converted gradually through the half-way house of co-operative institutions.

Co-ordination is to be secured by the local Bureaux de Travail, the Trade Federations, and the Federal Committee, consisting of delegates from both. Their work is "not direction, but condensation and analysis," and they wield no power in the interests of consumers against a refractory syndicate. One cannot repress a vision of a distracted Labour Exchange telephoning to Mr. Sidney Webb to send over a competent bureaucrat to put an end to the reign of industrial anarchy.

The concluding chapters deal with the social aspects of the new Utopia. The most pleasing feature is the prosperity of amateur theatricals, and the most curious the new penal code, which combines lynch-law for the offence of rape with a moral boycott for all other known forms of crime.

I have said that this is a refreshing book, but it is also a disappointing one. It is redolent of the central fallacy of Syndicalism—that oblivion of the standpoint of the consumer which is at the bottom of the worst excesses alike of trade unionism and of capitalism. But the one solid common-sense contribution which we had supposed that Syndicalism offered to the solution of the industrial problem seems to have vanished—the suggestion of the possibility of a restoration to the manual workers of a sense of personal ownership in the means of production, and of direct financial interest in and responsibility for the prosperity of their

own trade. We are left with a *réchauffé* of the visions of early English Socialism, exhilarating, like all fine visions, to the imagination, but leaving the reason distrustful and unconvinced.

D. H. ROBERTSON

Le Droit International Ouvrier. By ERNEST MAHAIM. (Paris : Recueil Sirey. 1913. 385 pp. Price 6 francs.)

NEW inventions necessitate new laws. The modern development of international life has resulted in the appearance of a new branch of international law (*le droit international ouvrier*). This was the subject chosen by Professor Mahaim for a course of lectures to students at the Sorbonne, which have now appeared somewhat amplified in book form. Professor Mahaim covers the ground very thoroughly. He finds it convenient to divide the subject into three parts. The first deals with the settlement of workers in foreign countries, both from the point of view of the attitude of the law towards foreign persons wishing to immigrate, and inversely as regards the attitude of a State towards its subjects abroad. In the second part he considers the position of foreigners under the various branches of labour legislation. Of these by far the most important from the standpoint of international law are the insurance and compensation laws, which show great variety in their treatment of the rights and duties of persons of foreign nationality employed temporarily or permanently within their respective spheres of operation. These laws illustrate most strikingly the influence of modern legislation on international relations. The countries concerned have found it necessary to conclude a whole series of treaties relative especially to accident insurance; the texts of most of these are printed in an appendix. In the third part we come to labour treaties proper, *i.e.*, conventions by which two or more States definitely pledge themselves to introduce laws of a particular type, not so much in the interests of the subjects of any other States within their territories, but generally for the benefit of all workers, and especially in order to avoid inequality in commercial interests. We note, by the way, that Professor Mahaim denies that these latter interests are at stake. He maintains that industrial legislation is economically profitable from the point of view of the individual manufacturer as well as of a nation at large. It is clearly impossible to give a general reply to the much disputed question of how far a high standard of wages and conditions is an economic advantage—too much depends upon local conditions, the skill and capacity of the individual employer, and his power to turn temporarily increased

outlay to advantage in the long run. But Professor Mahaim seems rather to cut the ground away from the conventions in question by merely leaving them the purpose of consolidating and fortifying the laws of the different countries. The main object of the book is, however, to instruct on the history of this new development in international law and on its present position. Incidentally, considerable light is thrown on the very interesting Franco-Italian Treaty of 1904 and its later supplements. Here, indeed, we do seem to have a case of one Government strengthening the hands of another in developing and enforcing its industrial law by undertaking to make, in return, certain concessions in the way of protecting its subjects from exploitation. Professor Mahaim gives a lucid description of this very remarkable treaty, which was the first of its kind, and still remains in most respects unique.

So many fresh proposals for international labour conventions have been brought forward recently, that this general survey of the present position comes appropriately. If we are tempted to regret that Professor Mahaim does not discuss more fully the economic aspect of these conventions, we must remember that the book does not pretend to be a complete and reasoned treatise.

S. SANGER

The Spirit of Association, being some account of the Guilds, Friendly Societies, Co-operative Movement, and Trade Unions of Great Britain. By M. FOTHERGILL ROBINSON. (London : John Murray. 1913. Pp. x + 463.)

THIS fresh conspectus of the four great movements of associated effort which have contributed to cause the notable advance produced in the condition of the working population of this country is opportunely published at the present juncture ; and it may, we think, continue to fulfil a useful purpose in the future. The book does not, indeed, pretend to be either original or exhaustive, for the writer adheres to the "more beaten tracks" of exposition. Those who demand a minute detailed familiarity with any one of the four manifestations of the "spirit of association" here exhibited in outline will doubtless consult the authorities employed for this summary review. But they will find that those sources have been ascertained and explored with observant thoroughness. They will commend the discriminating judgment brought to bear upon the survey, and the form in which the

results are presented is not only adequate for the end in view, but is also in itself attractive. From mediæval gild to modern trade union the interested reader is led on with a sure and dexterous hand. He is acquainted with the outstanding features of the past and the present of the typical friendly societies, and he learns the various distinctive phases contemplated or realised of co-operation and co-partnership. He is not offered startling paradox or tantalised with imaginative conjecture, but is told the recorded truth in an agreeable and lucid fashion.

And yet, for all its sober exactitude, the story is by no means unimpressive. It possesses, indeed, some of the fascination of the romantic occurrence of the unexpected. We note an amazing growth from small beginnings to large developments. Who could have foretold, for instance, the immense possibilities of that simple "Rochdale plan," which transformed co-operation from its early disappointments to its assured success? We are reminded again of the illuminating parallel which can be established between the gilds and the trade unions in the combination of individual self-sacrifice with class-selfishness, although the "craftsman" of the Middle Ages was as much a master as he was a workman, and was more identical with than hostile to those "merchants" whose societies came before his own. Even the "journey-men fraternities," on which, as our author shows, fresh instructive light has recently been shed, seem to have been brought more or less completely under the controlling influence of owners of capital, and did not wholly represent, or consist of, hired wage-earners smarting from a sense of crushing oppression and lifelong dependence. The great friendly societies, lastly, in their turn, retained to our own day the bright trappings of picturesque ceremonial and of quaint details of dress which link them with the past, and the very name of one large "order" shows the association with unmistakable emphasis.

In their connection especially we share the regret expressed by the writer of this book at the modern encroachment of State officialdom on the province of the voluntary effort therein described. Some acute and informed historians indeed, of trade unions have given their cordial welcome to the increasing tendency which is evident to invoke the strong arm of legislative compulsion in the promotion of their aims. But to other observers a most significant and most ominous incident of the immediate moment is the rapid conversion of the friendly societies into virtual government departments by the coercive stress of the Insurance Act. With this faithful moving narrative before us of the work done

by the "spirit of association" in the past, we feel considerable misgiving of the future, and we doubt whether the changes now being wrought before our eyes will be pronounced beneficial when the final balance can be struck between loss and gain. It is certain that the willing unpaid work by which these great monuments of voluntary effort have been raised, and were, hitherto, supported, will not be readily, if it can be satisfactorily, replaced by the costly multiplying "red-tape" of professional bureaucrats with their uniform rules and their inelastic methods. Already the destruction and its attendant loss are more manifest than the gain which may possibly accrue in the end from the new construction so precipitately designed, so hastily begun, so peremptorily pushed on, and so noisily and extravagantly praised. Already that fresh building has urgently required repair, resting, it would seem, on an insecure foundation.

L. L. PRICE

The Distribution of Incomes in the United States. By FRANK HATCH STREIGHTOFF, M.A. (New York: Columbia University. 1912. 8vo. Pp. 171.)

THIS study is directed principally to showing the complete inadequacy of the statistics of the United States to answer any of the more important questions which the legislator or the economist would naturally put as to the amount, distribution, or rate of change of incomes or wages. There have been several well-designed investigations as to rates of wages in individual States and a few more comprehensive enquiries; but the author shows by careful analysis that every one of these breaks down when a definite and general statement is attempted. After an exhaustive survey of the more recent wage statistics we arrive at the following summary of the single conclusion (affecting the whole of the United States) which they can be made to support, and it is evident from the data that even this is a bold approximation: "In view of this consideration, and of the general harmony of the statistics presented in this chapter, it is reasonable to believe that, in 1904, something over sixty per cent. of the males at least sixteen years of age, employed in manufacturing, mining, trade, transportation, and a few other occupations associated with industrial life, were earning less than \$626 per annum, about thirty per cent. were receiving \$626 but under \$1044, and perhaps, ten per cent. enjoyed labor incomes of at least \$1000. If to these the agriculturists are added, sixty-five per cent. fall in the lowest earnings group, twenty-seven in the

medium, and eight in the high. Suppose all the men engaged in gainful occupations in 1904, but unaccounted for in this estimate, to have been paid \$12 per week or more. This is manifestly impossible, yet, even upon such an assumption, fully one-half of the adult males engaged in remunerative labor were rewarded in that year with less than \$626 " (p. 139). Put otherwise, the *median* wage in 1904 in U.S.A. was less than \$12 per week; against this we may say with more definite evidence that the median weekly wage at the same date in the United Kingdom was rather below \$7. The author finds no sufficient data for the last nine years, but after reviewing the evidence he concludes that there is no ground for the prevalent belief that in U.S.A. there has been a large increase of wages since 1890, and whatever increase there may have been has been offset by rising prices.

When we turn to income arising from property we are still more at sea. "A triple conclusion is, therefore, confirmed at every turn. First, that the number of individuals enjoying incomes from capital is unknown, though large; second, that the total national income from capital cannot be accurately determined; third, that as a consequence, it is futile to attempt to describe, in any way definite enough to be valuable, the distribution of incomes from property in the United States" (p. 150).

Mr. Streightoff hopes that this deficiency of statistics will be realised, and that efforts will be made to make it good. He suggests that at the next census (1) the schedule of enquiries as to agricultural products shall be slightly extended so as to show the aggregate product and the aggregate out-goings in each farm; and (2) the rental value of their house or tenement shall be asked from non-agricultural households. (1) would give at once the income of the farmer; (2) might be made to indicate incomes if sufficient sample enquiries were made to show the relation of rent to income. We are a little sceptical as to the success of these enquiries; the American farmer must keep very much more elaborate and accurate accounts than his English contemporary if the real value of his activities, of his consumption, sales and shelter can be found by such simple and universal questions; while experience here shows that the relation between rent and income is variable and complex. No doubt the relation could be learnt if a sample investigation were adequately carried out; but this sample enquiry would have to extend over all the States and principal towns, and it would be very difficult to make certain that the incomes of the households were accurately stated.

Perhaps the author could add to his services in the direction of improving statistical data by conducting a careful experiment in this direction.

A. L. BOWLEY

Elementary Economics. By S. J. CHAPMAN, M.A., M.Com.
(London : Longmans, Green, and Co. Pp. 169. Price
2s. net.)

THIS little volume of Professor Chapman's is, in one way, a very remarkable achievement; yet it is doubtful whether it was worth doing. Putting the whole of economic theory into 169 small pages is a feat of the same order as printing the whole of the Lord's prayer on a threepenny piece; it is very wonderful and very useless. Professor Chapman's task has been accomplished with great skill; there is not a superfluous word in the book, and most of it is extremely lucid and admirably expressed. Needless to say, the theory is strictly orthodox, the earlier chapters might fairly be described as "potted Marshall," and even the omission of any account of "quasi-rents" is almost certainly due to compression and not to heresy. Indeed, the reader must marvel, not at what is left out, but at all that is included in the volume; for he will find a chapter on "The Purchasing Power of Money" as well as an explanation of "Comparative Costs," and another of "The Incidence of Taxation."

Having paid tribute to the ability of the workmanship, one is entitled to ask: What is the utility or "value in use" of the product? It is all dry bones. The marvel of compression is obtained at the cost of omitting every question which contributes the smallest interest to economic problems. On page 6 we are told that, "With a view to social progress, it is important to consider what we ought to regard as wealth. But to consider this is the province of what is called ethics. Economics is only concerned with what people actually regard as wealth at present." Similarly, on page 109, we read that, "The economics of distribution does not aim primarily at showing how, by laws of inheritance or otherwise, it is made easier or more difficult to be born wealthy. It aims primarily at showing why a man's income from his invested wealth is what it is; and why his earnings are what they are."

It is by limiting in this way the scope of the subject that books of this kind do infinite harm to economic science. It is painful to imagine some working-man, thirsting for a better equipment

to tackle and comprehend the problems of his time, picking up this masterly exposition of economics and finding every vital question shut outside an air-proof door. It is even comical to picture his expression when, on nearing the end of the book, he is faced by this question ("with Hints for Solution"), "Demonstrate fully that all labour tends to receive as its wages its marginal worth."

Professor Cannan's shilling *Elements of Political Economy*, incomplete and partisan though it is, comes far nearer to supplying the needs of the beginner than does this learned and impartial collection of all the bones in the economic skeleton.

HAROLD WRIGHT

The Economics of Everyday Life: a First Book of Economic Study. Part I. By T. H. PENSON, M.A. (Cambridge: The University Press. 1913. Pp. vi+168. Price 3s. net.)

ONE may say at once that Mr. Penson has been successful in producing what, in spite of certain blemishes, is an excellent short text-book. The science of economics has not succeeded in producing many good ones, but this is one of the comparatively few that are good. One mistake, indeed, Mr. Penson, or his publisher, appears to have made in forgetting that a text-book should be complete in one volume and not run in two, and I cannot but think that the policy of having two parts will prove inconvenient to his readers. The present one deals with the science down to the end of the subject of Distribution; that of Exchange, which includes Money, but not Foreign Trade, being treated after Production. Part II. will cover Consumption, Taxation, and Trade Unions and Co-operative Societies.

Mr. Penson writes mainly for students in the very earliest stages of economic study, and his treatment is, consequently, of the simplest. Perhaps at times it is made almost too easy, but this, on the whole, is a fault on the right side, and some economic text-books one can call to mind are far too difficult. Mrs. Fawcett's little book, perhaps, strikes the mean most happily. For economics is so constituted that, to give the serious student a real grip of it, he should be provided with something that can be mastered without difficulty, and is clear enough when mastered to be retained in the memory. That is why, at a later stage, Mill's *Principles* are so admirable an instrument of economic study. Real learning of a subject is apt to be retarded if the teaching is made too easy; and, from the point of view of more serious

students, Mr. Penson is inclined to err in this direction. A great deal of allowance must be made, however, for the class for whom he is writing, whilst he is further justified by the very great need that exists for a work of just this particular kind. The book has a few minor blemishes. Occasionally, though he is never verbose, the author gives unimportant matters more space than they deserve, and one or two of his tables and illustrations are a little complicated.

These small defects, however, are outweighed by the book's merits. The treatment is clear, lucid, and vivid, and apart from occasional exceptions noted above, neither too long nor too short; whilst Mr. Penson is not like some writers, obsessed by a certain epigram about brevity. He is never brief at the expense of clearness. He has a considerable gift for definition, some of his being quite complete and yet not a word too long. He is also very happy in bringing home to novices the real meaning of economic terms, by using better understood phrases as alternatives to the more technical expressions. Thus, the "source of income," "buying and selling," and "the individual income," bring home to the man in the street what is really involved in Production, Exchange, and Distribution. His illustrations, too, really illustrate, and his tables and diagrams, which are of a somewhat original kind, are, with a few exceptions, admirable.

The book is admirably fitted for the upper forms of schools, for those who do not aim at more than an elementary knowledge, and for the general reader who does not wish to study the subject seriously but only to get a general view of it.

N. B. DEARLE

Tariffs at Work: an Outline of Practical Tariff Administration, with special reference to the United States and Canada. By JOHN HEDLEY HIGGINSON, B.Sc. (ECON.). (London: P. S. King and Son. 1913. Pp. xiv + 136. Price 2s. 6d. net.)

MR. HIGGINSON, in writing this book, has limited himself strictly to the attempt to describe and criticise the various forms of Tariff Administration as they exist at the present time. He describes clearly and lucidly the different kinds of tariffs that exist, and discusses their merits and defects, dealing with the machinery they utilise to achieve their object, the difficulties which they encounter, and the manner in which these are overcome. Throughout the author avoids the more controversial aspects of

the question, and besides being fair and impartial, his book shows much evidence that he has brought to his study of the subject what is essentially a cross-bench attitude on this most vexed problem. This decidedly increases its value.

The opening chapter deals with the question of Tariff Systems, and traces the rise of the more complicated ones to displace that of the Single Tariff. The latter is of little importance to-day and is seldom found except in Free Trade countries, such as Great Britain. Modern Tariffs have not only to guard the home market, but to secure entry on favourable terms into those of foreign countries. The performance of this double duty is one of the more obvious difficulties in the way of an effective protective tariff; and the Single Tariff is not an efficient weapon for the purpose of achieving the latter objects. Mr. Higginson points out, however, that both the General and Conventional Tariff System, as found in Germany, and the Maximum and Minimum System, have attained considerable success in both directions. The former, which operates by means of commercial treaties extending over long periods of years, has been the more effective, and, from the commercial point of view, has the merit of greater stability. The adoption of the latter in France and the United States is largely due to political causes. Finally, the Multiple System, as exemplified by Canada, has successfully provided for preferential treatment as well as negotiation, and with the growth of the principle of preference is likely to achieve a more extended use.

In the short chapter on the Making of a Tariff the most significant parts are the evidence it gives of the growing specialisation of duties, the reason for which is to be found largely in the attempt to confine tariff concessions to the country to which they are given, and of the use of specific duties in such a way as to equalise the burdens on different grades and qualities of an article. *Ad valorem* duties are, theoretically, both better and fairer, but have serious defects in practice, particularly in leading to under-valuation and in destroying any certainty in the mind of the importer as to the rate of duty with which he will be charged. Commercially and in practice specific duties are preferable, and by means of specialisation they acquire many of the merits of those levied *ad valorem*. The system, however, to be effective does require a very large number of separate duties. The whole question is carefully discussed in the third chapter.

The chapters on Bonded Warehouses and Free Ports, and on Drawbacks are perhaps most suggestive as showing the measures

by which modern tariff-makers have provided for the case of the *entrepôt* trade; and there is a chapter on the Prevention of Smuggling. Perhaps the most interesting point about the book is the light which it throws on the various difficulties in the way of framing a fair and efficient tariff. Their existence, on the one hand, is clearly shown; but to me it seems no less clear that they can be and are successfully overcome, and that the modern tariff is, on the whole, an effective, often a highly effective, instrument. For the rest the book makes most interesting reading, and causes one to regret that it does not treat of its subject at greater length and in fuller detail. But it does give a really excellent short treatment, and as such deserves to be widely read.

N. B. DEARLE

Railroad Taxation in Minnesota: Analysis of the Gross Earnings Tax. By E. V. ROBINSON, Ph.D., Director of the Department of Research and Statistics of the Minnesota Tax Commission, and Professor of Economics, University of Minnesota. (St. Paul. 1912. Pp. 58.)

THIS work is a reprint of a chapter from the third biennial report of the Minnesota Tax Commission, and, although it is primarily concerned with the practical problems of a single State, it draws so widely upon general experience, and makes so many careful comparisons, that it is of more than local importance.

Three forms of property or *ad valorem* taxation of railways have existed in the States: (1) assessment by a multitude of local assessors, now retained only by the once progressive Rhode Island, and abandoned elsewhere because of its inherent inequalities and absurdities; (2) assessment by a State board of assessors, but still according to the principle (or lack of principle) of the general property tax; (3) capitalisation, or valuation by the "stock and bond" plan. In contrast to these are three forms which take income as the test of ability-to-pay, (4) taxation of gross receipts, (5) gross earnings, (6) net earnings. After briefly examining the others, Dr. Robinson regards (2), (3), and (5) as the only methods needing serious consideration, and their comparative merits are carefully discussed. The State assessment method is disposed of as unequal, uncertain, and arbitrary, after an appeal to facts which incidentally throw a vivid light upon the general property tax as a whole. The ratio of the value as assessed for purposes of taxation to the commercial valuation in

various States is shown to vary from 7·5 per cent. in Wyoming, 14·3 in Washington, and 16·9 in Kansas, to 70·9 in Michigan and 73·3 in Vermont, and taken as a whole the valuations are at very low levels. The "stock and bond" method is still used in six States—Pennsylvania, Massachusetts, New York, Delaware, Kentucky, and Connecticut. It is defective because of the deceptive character of stock values, the fact that the whole is not necessarily the sum of the parts, and that values are affected by non-transportation assets such as hotels, mines, &c.—the main objection to the "net receipts" method also. Moreover, it is of doubtful legality under the constitutional law. The author is concerned to show that the gross earnings method now employed in seven States is the best yet devised, and his argument loses nothing in force on account of the fact that Minnesota had the lucky prescience to adopt the system early and maintain it steadily. It is advocated because it is constitutional, is substantially just as between different roads, is not self-assessed, varies properly with business conditions, and dispenses with valuation. It does not corrupt politics, legalise excessive railroad charges, or retard railroad construction. Although some of the considerations seem to move at times in a vicious circle. Dr. Robinson makes out his case with great skill, the argument being lucid and well arranged. The problem is essentially an American one (since the taxation of *annual* values raises quite different issues), but the introduction of thorough-going systems of income taxation will in course of time profoundly modify the whole position.

J. C. STAMM

Die modernen Lösch- und Ladeeinrichtungen und ihre Bedeutung für die Seeschiffahrtsbetriebe. By DR. AUGUSTIN HAASE. (Jena : Gustav Fischer. 1913. Pp. 112. Price 3 marks.)

It is generally recognised at the present time that one of the greatest assets of a port is promptness in the discharge and loading of cargo, and it is with the facilities provided at Hamburg for such "rapid dispatch" that Dr. Haase is concerned. He selects Hamburg as being "the most important Continental seaport" (p. 1), and, except for an occasional reference to Rotterdam or Antwerp, and some tables of comparative charges in the appendix, his whole attention is confined to the German port. The main purpose of his first seventy pages is to describe in non-technical language the works and apparatus at Hamburg for loading and

discharge. He adds some historical sketches and some geographical explanations, so that this part of the book might be described as a handbook to the port, academically annotated. There is a large and detailed collection of particulars as to accommodation, equipment, and charges, which should be useful for reference.

Not until the fifth of his six chapters (which bears as its heading the title of the book) does the author enter on a more general treatment. He begins with an account (pp. 72-6) of the growth and increasing regularity of ships, and of the development of shipping as a separate business, which, although necessarily containing a certain amount of familiar matter, is an admirable exposition, and leads up to the point which is the key to his subject—the necessity of keeping valuable ships in port for as short a time as possible. In a very interesting series of tables are then set out the comparative costs of the various means of discharge available, showing the cases in which each method is most advantageous.

Hamburg presents two distinct methods of discharge: firstly, at moorings in the stream; and secondly, at the quays. Probably there is no other port of equal importance where these two methods could be better seen side by side, and their comparison is one of the most valuable features of the book. While the chief appeal of the work will be to the student of port methods, the geographer will find interesting but scattered information as to how inland water communications favour overseas discharge, and as to the various effects of ice in winter. Historical interest lies in the accounts of the development of special methods for dealing with grain, coal, and petroleum, and of the growth of the equipment of Hamburg.

As the opening chapter is mainly historical, it is a pity that the tables inserted have not been recast; although the dates on which the various works were opened are given, they are not arranged chronologically. A simple plan of the port would have been helpful. The book represents a detailed and lucid treatment of a somewhat restricted subject.

F. A. HOWE

Die ausländischen Elemente in der russischen Volkswirtschaft.

By DR. B. ISCHCHANIAN. (Berlin: Siemenroth. 1913. Pp. xviii + 300. Price, Mk. 7.)

THE cultural and economic development of Russia presents a phenomenon unlike that of all Western nations. Where the latter

have evolved mainly through their own innate forces, Russia has at all times called for the vivifying influence of the more advanced lands and received it in men and in capital. Inhabited by wandering and warring tribes, ravaged by the Mongolian invasions, cut off from easy access by the inclemency of the seasons which periodically closed the Baltic approach, that great Continental plain remained in a condition of semi-barbarism after its Western neighbours had proceeded a good way on the road of civilisation. Greeks from Byzantium and Scandinavians were the forerunners, but from the end of the fifteenth century Italians, Danes, Germans, and English were brought over by the Tsars to instruct their people. The history of this process of education is the theme of Dr. Ischchanian's book. He traces all its ramifications and assembles all the available information in a manner useful alike to the historian of culture and to the business man studying the scientific basis of investment.

Roughly speaking there were two colonisations, one by men, the other by money. The former has two modes, the earlier being the introduction of instructors, as we know from the familiar stories of Peter the Great; the second, as followed by Catharine and her successors, of the settlement of German agricultural colonies in Poland, South Russia, and Transcaucasia. In 1890 there were 310,000 such colonists in South Russia, in 1901 there were 600,000 in Poland. The administrative measures by which that movement were furthered are set forth in detail by the author and are of much interest. The colonies have been economically successful, but their civilising influence, in his opinion, has been very limited. With the nineteenth century we come to the exploitation of Russian material resources by foreign men and capital. The textile industries of Poland and of Moscow are German; the coal and iron industries are Belgian and French; the petroleum industry is Swedish and English. Of course, men of all nations took part in each industry, but the dominant nationalities are as stated. Most noteworthy is the story of Ludwig Knoop, of Bremen, who stood as the intermediary between English capital and Russia in the 'forties and 'fifties. "He" was the guarantor of credit; he founded spinning mills and equipped them with English machinery—in his life-time he founded 122; he was the great organiser and also a monopolistic and speculative contractor. The Russian proverb ran, "Where there is a church, there is a priest; where there is a factory—a Knoop." All this development is carefully traced out with lists of companies, their capitals, and their dividends. Parallel with it there is an analysis

of the foreign population of Russia and its activities. The growth of the Russian national debt is also described, and its burdensome character, owing to its unproductive nature, is also brought out. France is the chief creditor; Britain took part mainly in loans for railway development.

HENRY W. MACROSTY

The Control of Trusts. By J. B. CLARK and J. M. CLARK.
Enlarged and rewritten. (The Macmillan Company. Price
4s. 6d. net.)

THIS larger edition of Professor Clark's earlier book, contains an interesting development of his scheme for dealing with the great corporations. It should be read in connection with President Wilson's chapters on the same subject in his book *The New Freedom*, and Mr. Stevens' valuable collection of original documents. Professor Clark holds that it is possible, by a variety of different safeguards applied at different points, to retain the Trusts as a valuable result of economic evolution and regulate their action in the public interest. The field must be kept open for the independent producer, both actual and possible, mainly by the suppression of that formidable method of Trust activity, the discriminated price. Professor Clark believes this can be met by the enforcement of a level price, at least within certain areas, and with the possible help of the zone system of transport rates; and by such a reduction of the tariff as will prevent the huge subsidies out of which these local "cuts" have been financed. This is the main theme of his argument; the instrument of its application to be an Interstate Trade Commission on the lines of the Interstate Commerce Commission.

The points which seem to me of most interest in the argument, which is closely reasoned and of great economic value, are, in the first place, the claim that a rigorous suppression of combinations cannot be afforded in view of their possible working economies, the more so when the land is taken up, and a nation is thrown back for its future sustenance on industrial invention; and, in the second place, the phenomenon of competition called in as a remedy for the evils of combination—competition which was the disease which combination was itself to cure. The interlacing of these two economic forces, as both in their measure necessary to economic life and progress, is the moral of the argument.

D. H. MACGREGOR

Leasehold Enfranchisement. By E. A. COLLINS. (London : P. S. King and Son. 1913. Pp. 117.)

MR. COLLINS writes as an advocate of compulsory enfranchisement. In the main, he bases his case on a general statement of the leaseholder's grievances. This is to be regretted. No one would now deny that the leasehold system is capable of abuse, and that, in fact, it sometimes is abused. The extent of the evil is more difficult to ascertain. Mr. Collins throws no light on that point. True, he tells us that he has twenty-five years' experience as a solicitor in London, and his general impressions are therefore entitled to some weight. But the leasehold system which is the rule in London is the exception in the country as a whole. We are not confident that Mr. Collins has altogether avoided the mistake—so common in Londoners—of assuming that the metropolis is typical of all large towns. At any rate, he affords us no material for a quantitative analysis of the situation.

The fact that an evil is not widespread is, of course, no reason for neglecting it if the remedies proposed are effective and do not involve any considerable inconveniences. It is doubtful whether the somewhat old-fashioned proposal which Mr. Collins supports satisfies either of these conditions. He suggests that all future leases (other than mining leases) granted for a life or lives, or with a perpetual right of renewal or for terms exceeding thirty years, should by statute include the same right of compulsory purchase as is now given to railway companies and other corporate bodies. This right should be given also to the holders of existing leases that fall within the above definition. Contracting out should be forbidden. There is one serious weakness in this scheme, as in all schemes of a like nature. If a long lease is made to carry with it an option to buy the freehold, there will be a tendency among owners who object to selling outright—and Mr. Collins tells us that they are numerous—to substitute for the long lease a short lease with a tacit undertaking to renew. The short lease is open, in a greater or less degree, to almost all the objections that apply to the long lease, and its tenure is less secure. With the details of Mr. Collins's plan we have not space to deal. It must suffice to remark that he considerably under-rates the difficulties in his way. It is surprising, for instance, to find a lawyer calmly accepting the principles of valuation laid down in the Lands Clauses Acts, and in the case-law that has grown up round them, as "a system that has worked satisfactorily": the tendency of all recent legislation providing for the compulsory purchase of land is to override and upset that system.

Though Mr. Collins is chiefly concerned with leasehold enfranchisement, he makes one or two other proposals which are more in accord with the trend of modern opinion. Thus he would empower the leaseholder to have onerous covenants set aside by showing cause before a permanent Commission constituted for this and similar duties. In the case of short leases the leaseholder should, he urges, have a statutory right of renewal subject to an appeal to the Commission. There seems to be a growing consensus of opinion that the problems connected with the tenure of land are to be solved by the institution of some such machinery for arbitration between landlord and tenant, rather than by rigid regulations like the statutory provision for a universal right of compulsory enfranchisement. But those who wish to obtain a clear and concise statement of the arguments advanced by the older school of reformers cannot do better than read Mr. Collins's little book.

G. F. SHOVE

NOTES AND MEMORANDA

THE ECONOMIC REVIVAL OF MESSINA.

OF all the inhabitants of Messina whom the evening of December 27th, 1908, called to rest, only two-fifths saw the dawn of the 28th. When, in a few moments, sixty thousand people had been killed and many thousands wounded, it might have been supposed that all life would abandon in horror a region doomed to destruction and death, and that—as in the case of Pompeii—only the ruins of the unhappy city would remain as a witness to future ages of the impotence of man against the forces of nature. The houses had all fallen; the wharves of the port were shattered; the railway lines derelict; where a city had been, there extended a desolate stretch of ruins.

In less than five years Messina is reviving. The number of the inhabitants, which in 1908 exceeded 160,000 in the whole territory of the *commune*, and 100,000 in the city itself, has already risen again to 130,000 (of whom 75,000 inhabit the city). How does so large a population live?

Agriculture and fishing suffice to maintain about 25,000. These industries did not suffer seriously by the earthquake; and the farmers are able to derive large incomes from the cultivation of oranges and lemons. Fishing is still carried on in a primitive manner, and might easily be made very remunerative. There are no large manufacturing establishments; still, altogether, manufactures provide a living for about 60,000 persons. Those they directly occupy are about 20,000: of these 5,000 are engaged in the treatment of vegetable and animal produce (baking and the manufacture of macaroni, preparation of preserved foods, tanning, work in wood); 2,000 in metal work and the manufacture of machinery; 11,000 in house building and kindred industries; 1,500 in weaving and making clothes. Almost all the manufacturing businesses were destroyed in the disaster of 1908, together with the buildings and machinery; but year by year the old factories have returned to life, and the manufacturing

production is rapidly increasing. The special conditions resulting from the earthquake, the necessity of removing the *débris* (now about half removed), and of rebuilding the houses, have caused house building to become the most flourishing industry.

The number of those who make a living by trade is from ten to twelve thousand. Many are engaged in retail business, but there are also some large firms occupied in foreign trade.

Then there are very many (about 24,000 persons) included in the families of professional men (lawyers, doctors, engineers, &c.) and employees in public offices; for Messina is an administrative, military, and legal centre of considerable importance. All the public offices that existed before 1908 are again working, and the educational institutes have been reopened and are largely attended.

To show how the necessary conditions for the life of Messina are now re-established, I shall give some statistics of its trade and the business done by the railway.

Messina is the station for the ferryboats for carrying passenger and goods trains, and thus connects the Sicilian railways with those of the mainland. The goods traffic by them is becoming every year more important: to give an idea of it, it will be enough to say that the truckloads of lemons and oranges alone transhipped to the mainland in 1912 were 8,000 in number. The business done at the Messina railway stations themselves is not very great; 240,000 tons of goods were loaded and unloaded, and 609,000 passengers left Messina, or arrived there, in 1911.

The shipping business may be summarised as follows: In 1909 the ships entering and leaving the port were 5,402 in number, with a net total tonnage of 4,166,000. Sixty thousand passengers embarked on these ships and landed from them, while they received and discharged cargoes of 467,000 tons. In the last years before the catastrophe the total amount of goods loaded and unloaded did not exceed 500,000 tons.

The trade of the port will seem greater when we consider that much of the merchandise exported from Messina is of great value in proportion to its volume. The statistical returns of the exports and imports, including, however, only a part of the goods loaded and unloaded, show that their value was fairly high: in 1912 forty million Italian lire for the exports and thirty million for the imports. In 1907 the exports were valued at about fifty million and the imports at thirty million; since 1908 the exports have diminished, as part of the trade has been diverted from Messina to Catania and Palermo.

The exports consisted, for seven-tenths of their total value (that is, twenty-eight million Italian lire), of lemons, oranges, and the products of these fruits: peel, juice, essences, citrate of calcium, &c. Citrate of calcium and lemon juice are used in the preparation of citric acid, an industry not much developed in Italy. This class of product¹ forms about one-fourth of the entire Italian export of lemons, oranges, and their produce. The principal other centres for the export are Catania and Palermo.

The other three-tenths of the exports from Messina are also largely vegetable produce: almonds, walnuts, hazel nuts, canned vegetables, olive oil, wine, tar, &c. We may also include with these wheat paste, which is exported in a fair quantity.

The imports consist principally of foodstuffs (grain, coffee, beverages, &c.); raw material for manufacture (timber, skins, coal, &c.); and manufactured produce (agricultural and industrial machinery, cloths, &c.). The value of the coal imported in 1912 was almost three million lire.

Together with trade, the banks have resumed business: the discounts and advances granted by the two largest banks alone amounted in 1912 to fifty-four million Italian lire, a figure little less than that for 1908 (fifty-six million). And the accumulation of capital has been rapid enough: the cash deposits in the banks and savings banks at the end of 1912 amounted to sixty-five million lire. The value of the Italian Government Debt Securities on which interest is paid at Messina was about sixty-three million lire.

The revival of Messina which, at first sight, might appear strange and inexplicable, is partly due to the tenacious attachment of the people of Messina to their home; but, to a greater degree, is the necessary consequence of economic conditions. The existence of a large natural harbour at the most suitable point for the passage of the railway between Sicily and the mainland, a port of call for ships crossing the straits, where emigrants from Eastern Sicily to America may embark, and where the produce of the region may be accumulated for export abroad, calls for a city at this point.

The economic revival is now almost complete. But before the life of the city can resume its ordinary course, permanent dwelling houses must be built. Up to the present very few have been erected. Most of the people live in wooden barracks, only to be put up with as temporary dwellings, and now, after exposure for

¹ Two-fifths of this export goes to the United States, one-fifth to the United Kingdom, and one fifth to Germany and Russia.

three or four years to a very variable and rainy climate, in fairly bad condition.

There have been great difficulties in the way of permanent rebuilding of the city. There was no detailed map of the city such as was required for the preparation of the new city plan based on a scientific study of the effects of the earthquake. Before such a detailed map could be made a great deal of work had to be done in the way of removal of *débris*. Only at the end of 1911 was the new city plan ready; the delay was partly due to inaction and want of energy on the part of the persons entrusted with the work, partly to lack of funds, partly also to serious technical difficulties; and, perhaps more than all, to the interminable official formalities that hamper the whole life of Italy.

When it was possible to begin rebuilding, many controversies arose as a result of joint ownership, and delayed it further. The ownership of almost every house in Messina was shared among an incredible number of persons, and the courts were not always successful in the attempt to reconcile their rights. The State gives much encouragement and subsidises proprietors who rebuild their houses, and has extended these favours even to proprietors of upper floors (which cannot be rebuilt as the maximum height of the houses has been fixed at ten metres from the ground) who build on new sites. The State contributes very generously (more than half the cost of building); but the grant is subject to so many conditions and formalities that up to the present it has only been obtained in a few score of cases.

The capitalists do not show much enthusiasm for investment of their money in property that is fixed in a legal but not in a physical sense. For there is no proof as yet that even the most solid constructions, in conformity with the injunctions issued by the Government after 1908, and after serious scientific study, will be able to resist earthquakes as violent as that of 1908. Meanwhile, the few who have dared to build or restore houses compensate themselves for their daring by charging their tenants very heavy rent.

The building problem does not seem very near its solution, which will be made easier, though not complete, by the work of the *Unione Messinese*, an institution for the building of dwelling houses for the people, and by that of the Government, which has begun to build houses for its employees.

The rebuilding of public edifices has hardly commenced and proceeds very slowly. This is one of the points in which the Government is to blame, though it cannot be denied the merit

of having made suitable provision for the temporary housing of the population.

It is likely that for at least another three or four years many of the people of Messina will of necessity still be living in barracks. But there is no doubt that the advance of new buildings will gradually reduce the area of the wooden city, and finally cause it to disappear. Only then will the stranger see from the very appearance of the city that the life which animated Messina before the terrible catastrophe has completely returned to it.

GIORGIO MORTARA

THE TRADES BOARD ACT AT WORK.

It is somewhat early to write about the result of the Trades Board Act, but in view of the proposals to bring other trades within its scope immediately the earliest effects are worth noticing. For this reason I think that some facts collected by the Hebden Bridge branch of the Amalgamated Union of Clothing Operatives are of great interest. Hebden Bridge¹ is a small town in the West Riding of Yorkshire, and is the chief centre of the fustian trade in this country. As a considerable amount of fustian is made up into clothing in the factories of the district, and this branch of trade comes under the Trades Board, it offers a favourable opportunity for observing the working of the Act. The trade is confined within a small area, and to quite a limited number of firms all engaged on the same class of work, the number employed being about 3,000, nearly 400 of whom are men or youths.

The two chief features about industry in the district have always been the very low wages obtained by men, and the absence of trade unionism. This may be accounted for by the decay of industries in which men were formerly employed, and by the great demand for female labour, which led men with families to accept lower rates rather than leave the district where their daughters could earn high wages; also by the fact that until recently many small firms continued to exist, so that there was little difference in social standing between the employers and their workpeople. Simultaneously with the advent of the Wages Board there has come a wave of trade unionism over every branch of industry in the district, and it was for purposes of labour

¹ See "The Industrial Evolution of a Manufacturing Village," *Economic Journal*, December, 1911.

organisation that the facts set forth in this paper were collected. I think it is quite clear that the Trades Board Act has done three things for the clothing trade of Hebden Bridge :—

(1) It has lessened the hours of labour for everybody in the trade.

(2) It has raised the wages of men, but has not affected women's wages.

(3) It has helped to create a new spirit among the men ; the principle of combination as a means of improving wages and conditions of labour which had hitherto failed to grip more than a few individuals has now been suddenly adopted, and the men are joining the union in almost a mass movement.

The Act, which became compulsory on February 20th, fixes a minimum wage on 6d. per hour for men, and 3½d. per hour for women. Before it came into force the clothing factories worked fifty-eight hours per week. Hence, as a considerable number of men were employed at wages ranging from 20s. to 23s. per week, it meant, if the factories continued to work fifty-eight hours, an advance of wages of from 6s. to 9s. a week for a large proportion of the male workers. There had been suggestions for shortening hours previously, but nothing had come of them ; but before the Act actually came into force the employers decided to reduce the hours to fifty-two, without any alteration in wages. This reduction of hours applied to all workpeople, so that if a man has not received an actual increase in wages, he has received what is equivalent to a higher rate per hour ; therefore the Act has been a direct benefit to every man and youth in the trade. The women and girls are all employed on piece-work, but as their rate of pay yields a very much higher wage than the minimum of 3½d. per hour, the Act has not affected them directly in any way. It might have been expected that the reduction of hours would have lowered the wages of women, but that does not appear to have been the case. There is a general opinion that quite as much work has been done in the fifty-two hour week as in the fifty-eight. This would be difficult to prove, because comparisons made with the first half of 1912 are not of much value, owing to the disturbance caused by the coal strike. I have before me the report and balance sheet of the Fustian Co-operative Society for the half-year ending June, 1913, and the increase of trade done in their factory over any previous half-year bears out the general opinion. As there has certainly been no outcry among the women about the matter, we may fairly conclude that their earnings have not been less. One reason for

this is that owing to the higher wages now being paid to the men, greater efforts are made to keep them fully employed, with the result that there is less playing between jobs, and that the women's work is therefore more regular. Whether there has been increased strain or any other result of that kind cannot yet be determined. But so far shorter hours appear to be a clear gain to both men and women. It would appear also to have been beneficial to employers, for if there has been no decrease in output they will have saved on power and lighting.

In June this year the local branch of the Clothing Operatives Union determined to take a census of their male members to find out what wages were being paid. In order to ascertain the effect of the Trades Board Act they also asked for information about wages and hours before and after the Act came into operation. They issued the following circular to their members: Please state:—

1. Branch of trade (that is, whether stock or lining cutter, fitter, or warehouseman, etc.).
2. Number of hours worked per week.
3. Rate of wages.

If any changes have been made through the operation of the Trades Board Act, please fill in these additional particulars.

4. Number of hours worked per week previous to its operation.

5. Rate of wages previous to its operation.

6. Has the Act caused any changing of jobs or any changing of methods of working?

There were 250 of these forms sent out, and 230 were returned duly filled up. A committee of four was appointed to examine them, and as the returns from each shop were in the first instance kept separate, the committee were able to check them from their own personal knowledge, and they have every reason to believe that they are substantially accurate. These returns show quite clearly what reduction in working hours has actually taken place. Before the operation of the Act,

One firm employing 18 males worked 55½ hours.				
One	„	6	„	56
The remaining firms	„	206	„	58

Since February 20th, the date on which the Board of Trade made an obligatory order,

One firm employing 22 males has worked 52½ hours.				
One	„	6	„	54
The remaining firms	„	202	„ have	52

This gives an average reduction of more than five and a half hours per week, which has been a great benefit to the family and social life of the district.

The returns reveal some striking facts about men's wages in the clothing trade of Hebden Bridge, and also prove that the Trades Board Act has caused some remarkable increases to be given. The minimum of 6*d.* per hour is not compulsory until the age of twenty-two; therefore, as sixty-one out of the total number making returns are at present getting less than 26*s.*, we may presume they are juniors. Out of the 230 male workers, about whom we have definite information, 134 received increases when the Act came into force. The following table gives particulars of the advances received :—

	s.	d.
32 men received an advance of	1	0 per week.
25 " " " "	2	0 "
28 " " " "	3	0 "
23 " " " "	4	0 "
11 " " " "	5	0 "
8 " " " "	6	0 "
5 " " " "	7	0 "
1 man " " "	7	6 "
1 " " " "	8	0 "

The average increase per week was 3*s.* per man. In no case do the returns show any reduction of wages, and as the union officials have not heard of any such instance, it is evident that the increases are a clear gain to the workers.

These returns also shed light upon that most interesting and important problem as to whether there is any danger of a legal minimum wage becoming the actual maximum. Of the 134 who received advances, 111 had to receive them in order to bring their earnings up to the sum required by the Act; but the remaining twenty-three were getting the minimum before they received the advance. These twenty-three were evidently considered by their employers to be worth more than the lower-paid men, and when the wages of the lower-paid men were compulsorily raised, they were given a corresponding increase. This seems to indicate that whatever causes have tended to produce variation of wages in the past will continue to operate after a minimum has been fixed by a Trade Board.

The fears of some that increased wages would lead to numerous dismissals of men and the substitution of boys have up to the present been falsified. The demand for female labour in the district is so great that there is no possibility of replacing men from that source; and as there are no unemployed boys they

could not be used to do the work of the men. Numerous advertisements have appeared lately for boys and youths which seem to denote a desire to find cheaper labour, but as there is no supply at the present time employers have been compelled to pay the advance. The low wages of the past have naturally led to the employment of some inefficient in the trade, but the number that have proved not to be worth the higher wage has been very few. As far as can be ascertained only four men have lost their work through the operation of the Act, and one has got work with another firm and is now receiving the minimum; a second has gone back to the work he was engaged in before he came into the clothing trade; the third is working as a labourer in some works near by; but the fourth we have been unable to trace. The Act came into force at the end of the busy season, so that men could have been more easily disposed of than at any other time of the year, and therefore it is not likely there will be any further displacement of labour. There has been some re-arrangement of work, but in reply to Question 6 on the circular sent out by the union only two made any remarks, and these were so indefinite in character as to warrant us in saying that the workers have not suffered in any way.

The effect of the Act upon the organisation of labour has been most remarkable; the Clothing Operatives Union had only twenty-nine male members at the beginning of this year, and they have now over 300. This result has been achieved without any outside help, the same local officials who have worked for years with so little success have now found it quite easy to enrol members. Two other causes have helped toward this success--the wave of trade unionism that has lately swept over the country has undoubtedly affected Hebden Bridge, and recently the dyers in the fustian trade have both increased their wages and lessened their hours by trade union effort; but there is no doubt that what has moved the clothing operatives most has been the result of the Trades Board Act. The great barrier to trade-union organisation is lack of imagination among the workers. To them things have always been as they are, and always will be. But in Hebden Bridge they have received a shock which has given them vision. They have seen things alter before their eyes, they are working less hours and getting higher wages; they have realised that employers are not all-powerful, and are therefore determined to have a share in settling the future conditions of their labour. The union is already strong enough to have formulated a "wages list," which will shortly be submitted to the employers, who will

then for the first time be faced with the necessity of bargaining collectively with their workpeople instead of making individual arrangements.

The figures given above represent about 70 per cent. of the clothing trade in the district, and may be taken as typical of the whole. Apart from the general state of prosperity in which it shares, and the high price of cotton goods, there is nothing abnormal in the industry at the present time. There seems to have been no disturbance of prices, and the changes have come almost without being noticed except by the persons concerned.

S. C. MOORE

OFFICIAL PAPERS.

Report on Profit-Sharing and Labour Co-partnership in the United Kingdom. [Ca. 6496.] 1912. Price 8½d.

THE above Report possesses not only exceptional interest from the importance of its subject-matter, but also from the fact that it was the last piece of work upon which David Schloss was engaged, and it constitutes a not unfitting final contribution from one whose work throughout has been marked by thoroughness, by mastery, and by insight.

A brief section of the Report is concerned with profit-sharing and labour co-partnership in co-operative societies, but the greater part of it deals with cases in which these forms of industry exist in non-co-operative enterprises. Of such known to exist there are 133, of which 73 have been started at various dates during the last ten years. Four date back forty years and upwards. Profit-sharing schemes known to have been abandoned, during a period which ranges from 1829 to 1910, number 163.

The Report begins with an inquiry into the meaning of the terms "profit-sharing" and "labour co-partnership," and the most general features of the former are accepted as being found when "an employer agrees with his employees that they shall receive, in partial remuneration of their labour, and in addition to their wages, a share, fixed beforehand, in the profits realised by the undertaking to which the profit-sharing scheme relates."

In its simplest form labour co-partnership is interpreted as involving not only the condition "that the worker should receive, in addition to the standard wages of his trade, some share in the final profit of the business," but should also, by accumulating either the whole or part of this share in the capital of the business

employing him, thus gain "the ordinary rights and responsibilities of a shareholder."

Thus, although labour co-partnership differs from profit-sharing, both spring from the same root, and the former is but a further development of the principle of endeavouring to make the association closer between capital, control, and labour.

The inter-connection between the two is illustrated by the treatment of the subject in the second section of the Report, which, in a general summary of the particulars regarding profit-sharing and co-partnership, makes no attempt to distinguish between the two, but, in setting out such general figures as those relating to the number of the schemes which are being dealt with, their duration, the causes of cessation, and the trades in which the various schemes have been formed, groups both together.

But although the two broad classes of enterprise can be distinguished, and although analysis shows clearly whether profit-sharing is or is not accompanied by some measure of labour co-partnership, the manifestations of each class are themselves of great variety, and a valuable analysis of the schemes now in force which is included in the Report makes this abundantly clear.

In addition to the general analysis of schemes now in force, the Report contains a detailed account of a selection including that of the South Metropolitan Gas Company, the best known and perhaps the most successful of all.

It is remarked in the General Summary of the Report that schemes involving investment by employees in the capital of their employers' businesses have been meeting with a large measure of success, but it is also pointed out that "great caution is necessary in drawing inferences of a general character from these results."

"In the first place it is necessary to point out that in the great majority of cases the experiments are of such comparatively recent date that it may be somewhat premature to found upon results which appear to have been attained in these instances any very positive conclusion with regard to the general application of the co-partnership method."

Secondly, there is the fact that "a large number of these experiments have taken place in a single industry, and that this industry (gas-making) is carried on under very special circumstances and enjoys exceptional advantages."

Thirdly, "the issue of shares to employees means an addition to capital account, and this is not always possible or desirable" (page 11).

These warnings are a reminder that the conditions of complete success of experiments in labour co-partnership may be exacting, that the inherent circumstances of all industries are not equally suitable, and that permanence and stability become considerations of exceptional importance.

The moral qualities also required from all who are parties to these schemes have to be of no mean order, and it is not surprising therefore that the industrial forms of which the Report deals are still exceptional. But some of those that exist have, nevertheless, a value and significance out of all proportion to their number and their size.

E. AVES

The Industrial Council: Report on Enquiry into Industrial Agreements. [Cd. 6952.] 1913. 2½d.

IN June, 1912, the Government asked the Industrial Council to consider (1) what is the best method of securing the due fulfilment of industrial agreements; and (2) how far, and in what manner, industrial agreements which are made between representative bodies of employers and of workmen should be enforced throughout a particular trade or district. The Industrial Council's report is an interesting and important document, the outcome of the deliberations of employers and workmen, who may be expected to understand, from first hand experience, the matters under consideration.

It is not at all unlikely that their first conclusion will come as a shock to a large section of the public who a year or more ago were treated by the daily Press to accounts of breach of agreements by workpeople. Indeed, it seemed, owing to the prominence given to the question of unauthorised strikes and broken agreements (often without careful investigation) that the trade unions were invariably guilty of roguery. According to the Industrial Council, however, "notwithstanding [the] difficulties inherent in dealing with large numbers of workpeople, . . . agreements in most cases are well kept. Although a number of instances of alleged breaches of agreements have been referred to in the course of the inquiry, the evidence of a considerable majority of the witnesses is to the effect that agreements have, viewed generally, been duly fulfilled by both parties. The breaches that have been mentioned were, with a few exceptions, the result of the action of comparatively few men, or due to exceptional circumstances, or to differences and misunderstandings in regard to points of interpretation, and are not, as a rule,

countenanced by the respective organisations." Again, "where agreements have been broken it is frequently found that they were made at times when, owing to the abnormal conditions, great difficulty must have been experienced in arriving at a fair adjustment." Where a question of interpretation is involved in cases of alleged non-fulfilment of agreements (which is not infrequent) the Council are of opinion that the point in dispute should be referred to an independent chairman, or to arbitrators, or to a court of arbitration.

The Council express themselves in favour of the continued maintenance of voluntary conciliation and arbitration boards, and against compulsion, or, to put it in their own words, against any "alternative method based upon principles other than that of mutual consent." At the same time, they consider that the machinery for the voluntary settlement of disputes should be strengthened by the right of appeal to some independent body or impartial individual.

On the question of the particular methods of securing the due fulfilment of agreements, the Council lay great stress on the importance of efficient organisation on the part of employers and workpeople, and admit the value of "moral obligation." On the other hand, money penalties and money guarantees are considered unsuitable, though it is recommended that "where a breach of an agreement has been committed, no assistance, financial or otherwise, should be given to the persons in breach by any of the other members of the associations connected with the agreement."

The consideration of the second part of the reference, relating to the extension of industrial agreements, has led the Industrial Council to put forward a scheme of a very far-reaching character. Where trade union organisation is strong, they are often able to exert sufficient pressure on non-associated employers to induce them to observe agreements made by the unions with the masters' associations. Where, however, organisation is imperfect, "the effective maintenance of agreements is jeopardised by the existence of a section (perhaps only a minority) which is not party to, and therefore not in any sense bound by, whatever agreement may be arrived at by the rest of the trade." It is suggested therefore that the Board of Trade should have power after inquiry to extend agreements made by trade unions and employers' associations so as to cover the whole trade or district, on application to the central authority by either of the parties to the agreement, provided that the Board of Trade are satisfied "that the associations represented by the signatories to the agreement constitute

a substantial body of the employers and workmen in the trade or district, and that the agreement is a proper agreement and one that might suitably be extended." Though agreements cover a multitude of questions, that of wages is undoubtedly the most prominent. The proposal amounts, therefore, to the establishment of a legal minimum wage by trades, or sections of trades, through the instrumentality of voluntarily constituted "trade boards," whose agreements would receive official ratification. This method has, indeed, been advocated as one way of attaining the legal minimum wage (see *The Crusade* supplement for June, 1912, article on "The Legal Minimum Wage"). The suggestion was also put forward by Mr. J. Ramsay Macdonald in the House of Commons in June, 1912, in connection with the Port of London Authority dispute.

In memoranda appended to the Council's report the employers' representatives suggest the initiation of an inquiry into the effects of the Trade Disputes Act, 1906, obviously on the assumption that the law has been abused. The suggestion is to be welcomed; it might show that the charges of abuse, which have been freely made, are as baseless, generally speaking, as the non-fulfilment of industrial agreements. Who knows?

ARTHUR GREENWOOD

Report of the Departmental Committee on the Hours and Conditions of Employment of Van Boys and Warehouse Boys. [Cd. 6886.] 1913. Price 3d. *Minutes of Evidence.* [Cd. 6887.] 1913. Price 1s. 10d.

OUR code of industrial regulation has grown most unevenly, particularly as regards hours of labour. The maximum hours of labour of young persons in textile factories, non-textile factories, and places coming under the Shop Acts, vary, not because of any differences in the character and intensity of the labour or the conditions under which it is carried on—though these differences certainly exist—but chiefly because these and other forms of industrial and commercial activity are at different stages of State (or local) regulation. Some forms of labour, however, notably that of van boys and of lads in certain kinds of warehouses, are not regulated at all. Such boys, therefore, may work, without let or hindrance, for "as many hours as God sends."

The excessive number of hours which van boys in particular work is well known to those familiar with the problems of juvenile labour. The evil was brought before the Home Secretary by a deputation on March 27th, 1912, which not only laid stress on the

long hours worked, but on the injurious effects of the work on physique and on character. It was also pointed out that van boys were unable to attend evening continuation schools, and that the work was largely of a "blind-alley" nature. In a less degree, these evils are found amongst warehouse boys. As a consequence a small departmental committee was appointed "to inquire into the hours and conditions of employment of van boys and warehouse boys, and to report whether it is desirable that any, and, if so, what, means should be taken to regulate such employment"; the terms of reference do not therefore explicitly include any consideration of the "blind-alley" problem involved.

The inquiry has shown that the van-boy problem is limited in its application and arises only in certain towns, *e.g.*, London, Sheffield, Manchester, Liverpool, Leeds, etc. It is interesting to observe that while the volume of goods to be dealt with is naturally a powerful influence affecting the occupation, the local demand for juvenile labour is also of very great importance, for in Bradford and Huddersfield, where the textile industry offers opportunities of employment, there is hardly any van-boy labour; whilst in the neighbouring town of Leeds, where the demand for boys is not nearly so strong, a considerable number of lads are engaged as van boys. Another influence affecting the distribution of the occupation is the laxity or stringency with which by-laws as to leaving vehicles unattended are enforced. In large towns, also, it is said that the chance of theft of goods is greater.

Railway van boys, on the whole, are the most favourably situated of all those engaged in the delivery of goods. The hours as a rule are regular, and the chances of absorption good, the boys becoming porters, ticket collectors, parcels office clerks, &c. The parcels van boys are drawn from a better class than the goods van guards, and their conditions of service are generally superior to those of the latter. The boys engaged by the parcel delivery companies often work excessively long hours, and much of their work is done late at night (though as a compensation they commence later in the day). The tramway parcels delivery systems of Birmingham, Manchester, Bradford, Halifax, and Dublin, employ lads for reasonable hours, and the boys are more likely to obtain permanent employment than is the case with the employees of the private companies. It is, of course, urged that the parcels delivery companies do not dismiss their boys, but the lads themselves must be aware that the limits of the business make it impossible for them all to be absorbed. If the lads did not move off themselves, the companies would be compelled to dismiss the bulk of them.

The aerated and mineral water trade is essentially a seasonal one, so that the van boys are engaged for about eighty-four or ninety hours per week during the summer. Similarly, boys employed by biscuit manufacturers work up to 9 or 10 p.m. at Christmas time. Laundry van boys are often employed for long hours, particularly during May, June, and July.

According to *Coleman v. Roberts*, the hours of boys employed on shop vans can already be regulated under the Shops Acts, and this has been done in London and one or two other places. In other towns nothing has been done and the hours of these lads are therefore unregulated. As judged by the hours worked by other types of van boys, however, excessive hours of employment—at any rate in the case of the large shops—do not seem to be common. These boys, further, generally have ample opportunities of gaining permanent employment.

The Committee conclude that in spite of the long hours, van-boy employment is popular with the boys themselves, and the occupation is said to be a healthy one. The Committee recommend that powers should be given to local authorities to frame by-laws to regulate the employment of all van boys under eighteen years of age, and that no boy under sixteen shall be employed before 6 a.m. or after 9.30 p.m. They would limit the hours of labour of all van boys under eighteen years of age to seventy per week, inclusive of meal times (which they put at $1\frac{1}{2}$ hours per day). The usual public holidays should be allowed, or their equivalent. It is suggested that records should be kept for every boy of the times of commencing and ceasing work, and of the time allowed for meals, such records to be available for inspection by the officers of the local authority.

On the question of warehouse boys, the Committee agree that generally the evidence shows that the hours of labour are not excessive—though the good conditions they have found prevailing in the firms of high standing are not likely to be universal. It is recommended that in warehouses where goods collected by the vans are received, sorted and distributed, the hours of work of those under eighteen should be regulated in the same way as for van boys. In warehouses where goods are stored till required for use, employment should be regulated either under the Factory Acts or by some other means. In the case of wholesale warehouses where goods are displayed for sale, the employment of young persons should be subjected to the same restrictions as are applied by the Shops Act to persons employed in retail shops.

The evidence brought before the Committee is of a very inter-

esting character, particularly that of the various social workers who appeared to give evidence. Specially notable are the inquiries of Mr. Norman Chamberlain and Mr. Frederic Keeling.

ARTHUR GREENWOOD

Annual Report of the Chief Inspector of Factories and Workshops for the year 1912. [Cd. 6852.] 1913. Price 2s. 5d.

For the administration of the Factory Acts there was in 1912 a staff of 205 inspectors and assistants, of whom eighteen were women. The expenditure on administration is now rather under £100,000 a year. The present report indicates how the public is getting value for its money, not merely in the detection of evasions of the law, but in the accumulation of exact knowledge of industrial conditions and the investigation of special problems.

Some interesting industrial developments are noted. The exploration of the coal mines in the South of Yorkshire, around Doncaster, has led to the introduction of new industries, such as worsted-spinning and blouse-making, in order to utilise the labour of women and girls. It is reported from the northern division that the present period of good trade has "either used up the supply of women labour . . . or has enabled many women to stay at home and live on the better earnings of their husbands without having to work themselves." Miss Anderson's statement regarding the effects of the Insurance Act are distinctly worthy of notice, particularly those relating to changes in conditions and contracts of employment attributed to the Act. "Reductions in piece rates, resisted by strike, but unsuccessfully, and newer and severer graduated scales of fining for absence from work are the most striking examples from Ireland. The retaining in hand by employers of a certain proportion of wages due, avowedly to meet the expenses of the Insurance Act, fresh charges for power and for standing-room commencing just before or concurrently with the coming into force of that Act, have been the chief device complained of in English divisions." One case is noted "where a charge for 'standing-room' levied on uninsured as well as insured workers was newly imposed, bringing in a return to the occupier of £95 per annum, or nearly half his rent, without any fresh conveniences to workers." This was considered a contravention of the Truck Acts, and proceedings were successfully instituted. As Miss Anderson points out, "reduction of piece-rates in trades not touched by the Trades Boards

minima are changes following the Insurance Act that cannot be controlled, if the workers are not strong enough to resist them." It is admitted that, on the other hand, there are cases where employers have voluntarily borne the reduction from wages themselves, either directly or indirectly.

One effect of the trade boom has been a scarcity of juvenile labour, which has led to an increase of half-timers in the Lancashire mule rooms, and "some irregularity has been noticed in connection with sweeping under machinery—work that would be legal for young persons who are more usually employed, but illegal for children."

The inspectors' reports on sanitation are, "on the whole, encouraging, but still suggest the need for improvements in certain directions." Special attention was paid last year to the lighting of workplaces, a matter which the chief inspector considers has not yet received the attention it deserves. There are reported 656 cases of industrial poisoning (as against 755 in 1911), 154,972 non-fatal, and 1,260 fatal accidents, and 1,557 "dangerous occurrences," the metal and machinery industries contributing a considerable proportion.

The report of the medical inspector refers to three interesting investigations still in progress. Arrangements have been made for obtaining data relating to operatives employed under favourable hygienic conditions to serve as a standard of comparison with those employed under less favourable conditions. An inquiry is also being conducted into the physique of young persons employed in the cotton industry. The relation between fatigue caused in occupation to working efficiency and to morbidity, to which attention has recently been drawn, largely owing to Miss Goldmark's book on *Fatigue and Efficiency*, and Mr. F. Taylor's *Principles of Works Management*, is being the subject of special investigation. These inquiries, bearing so closely on the whole question of industrial efficiency, will be awaited with interest by economists and sociologists.

ARTHUR GREENWOOD

Report of an Inquiry by the Board of Trade into the Earnings and Hours of Workpeople in the United Kingdom. VIII.: Paper, Printing, etc., Trades; Pottery, Brick, Glass and Chemical Trades; Food, Drink and Tobacco Trades; and Miscellaneous Trades. [Cd. 6556] 1913. Price 2s. 8d.

IN this last volume of their inquiry the Board of Trade include a number of industries which show considerable diversity of

character; but they have some features in common. 'They are nearly all of moderate size, each group being estimated in the report to have employed in 1906 from about 300,000 to 400,000 workpeople, or about 1,500,000 in all; and they possess socially and industrially an importance that is greater than their mere size would lead one to suppose. Returns for the purpose of the present inquiry were obtained regarding 557,000 workpeople, or nearly two-fifths of the whole, and this number and proportion compare very favourably with those of some of the earlier reports. The proportion is lowest in the paper and printing group, and highest in that dealing with pottery, glass, and chemicals.

In these trades there are no cases of very low wages among boys, and only one (explosives) of very high ones. The same is true, on the whole, of girls, though in a few cases their wages are rather poor. Women's wages are exceptionally good in one case, process-block making, well above the average in the musical instrument and the umbrella trades, and very low in one or two others. Men's wages, on the contrary, show very considerable variations, which illustrate the differences in skill between different groups and particular trades. Taken as a whole, the printing trades employ as highly skilled labour as almost any other in the country, and this is reflected in their wages. Less than 4 per cent. of adult men earn under 20s. per week, and more than 12·5 per cent. over 50s. Other trades showing high rates are process-block manufacture, the glass bottle trade, the making of porcelain, musical instruments, umbrellas, and coopering. On the other hand, many comparatively low-skilled occupations are included in the Report, more particularly in the food, drink, and tobacco trades, though the lowest averages of all are found in the miscellaneous trades, among those employed in canal service, carting, and oil cake manufacture. It should be remembered further that owing to the inclusion of foremen and mechanics in the average, the rate of wage of the ordinary workpeople engaged in these trades is often below the average rate given for them. On the other hand, notably in printing and bookbinding, the higher proportion of the men employed in London helps to raise the general rate of wages, since wages there are usually higher than in other districts.

Another point to notice about this very composite group of trades is the high proportion of women and boys employed in some of them. In the printing groups less than half the workpeople returned were men over twenty, and nearly one quarter were women over eighteen. The proportion of boys to men was

nearly two to five. In the food group, men were a little over one-half, and women about one-fifth, of the total. In the pottery and miscellaneous groups, on the other hand, the former were nearly three-quarters of the whole. It should also be pointed out that, except in a few cases, the seasonal variations in these trades are not very marked. Hours of labour do not differ very much from the general average, being 53·6 per week as against 52·9 in the building trades, and 53·2 in the engineering and metal group. They are lowest in printing (52·5) and highest in food, drink, and tobacco (54·1).

The wage returns are of various kinds. One return gives the numbers employed and wages paid in the case, first, of all workpeople working full time, and secondly, of all workpeople, including those who have worked more or less than full-time, in a particular week in 1906. This is usually the last pay-week in September. Secondly, a return is made of the number employed and wages paid in the last pay week or other week free from disturbing causes in the year 1906, together with the annual wage bill for that year. By dividing this latter by the average number employed in these twelve weeks an estimate of the annual earnings in the different trades is obtained.

Compared with other groups of trades previously reported on, the difference between the average wages of full-timers and those of all workpeople is, as a rule, very small indeed, and where the reduction is very slight, is probably accounted for by the fact that a certain number of workmen may have worked for more than one employer during the week, and been included in more than one return. In a few cases, as with adult men in the pottery group as a whole, and with several of the miscellaneous trades, the difference between the two is sufficient to show the existence of an excess of short-time over overtime. It may be noted that the average for all workpeople is sometimes higher than for full-timers, whereas with particular classes of workpeople it is usually lower. This is due to the higher proportion of the highly paid men among all workpeople than among full-timers only.

In the annual earnings for the year that are given for all workpeople, similar results are obtained. Annual earnings represent a slightly larger weekly sum than do the full-time earnings of the chosen week, and about the same as the earnings of all workpeople, in the printing trades. In the other groups annual earnings work out slightly, but only slightly, lower than either of the weekly rates. Taking all the groups together they are the same as for full-timers, and rather below those for all workpeople in the

selected week. The actual average annual earnings were : Paper and printing, £54 ; pottery, &c., £59 10s. ; food, drink and tobacco, £48 10s. ; miscellaneous, £60 ; and the whole group, £55 10s. This represents weekly wages in the different industries of 20s. 9d., 22s. 11d., 18s. 9d., and 23s. 1d., or in all 21s. 4d.

In considering annual earnings allowance in calculating the weekly rate has to be made, on the one hand, for holidays, which in 1906 varied from about $4\frac{1}{4}$ working days in the year to about 13, and for which very few of the workpeople were paid. No estimate is given of the average number of holidays in the year either in particular groups or in the total. On the other hand, no allowance is made in the Report for workpeople totally unemployed from lack of work or other causes. Moreover, the average number employed is decidedly below the maximum number among whom these wages have to be divided—the monthly average in each group being lower by some thousands than the maximum employed in any month. Further, the total number engaged is likely to be greater even than this maximum, since similar aggregates in different months are almost certain to have been composed to some extent of different persons. Hence it is probable that allowance for all these causes would make actual weekly earnings to be somewhat less than the average as calculated from the annual earnings.

Finally, seasonal fluctuations are found to be comparatively slight in these industries, and very small indeed in the miscellaneous group. In the others they are somewhat more marked. Between the best and worst months there are variations of about 4 per cent. in numbers employed and $8\frac{1}{2}$ per cent. in wages in the paper and printing group, of about 1 and $9\frac{1}{4}$ per cent. respectively in the pottery group, and of about 5 and $7\frac{1}{2}$ per cent. in the food, drink and tobacco group. In some branches of the latter, indeed, there are very marked variations between the maximum and minimum wages bills, but in others fluctuations are almost non-existent. Moreover, in some cases, the steady improvement in trade during the year, by increasing the numbers employed during the later months, made the seasonal variation to appear more marked than it really is.

No attempt was made to compare the results of this enquiry with those obtained in 1886, the material available for the earlier period being either inadequate or not of a character to admit of an accurate comparison between the two years. The Report as a whole forms a fitting conclusion to the series, though such a necessarily miscellaneous collection of trades cannot be treated so

satisfactorily as the more homogeneous groups. Nevertheless, whilst certain detailed improvements might be suggested, the work taken as a whole has been excellently done.

N. B. DEARLE

Report for 1912-13 on the Administration of the National Insurance Act. Part I. (Health Insurance). [Cd. 6907.] 1913. Price 2s. 9d.

To be reviewed.

Report of an Enquiry by the Board of Trade into Working-class Rents and Retail Prices, together with the rates of wages in certain occupations in industrial towns of the United Kingdom in 1912. 1913. [Cd. 6955.] Price 4s. 11d.

In continuation of the similar enquiry made in 1905. To be reviewed.

Royal Commission on the Poor Laws and Relief of Distress. General Consolidated Index. Appendix Volume XXXVII. 1913. [Cd. 5443.] Price 8s. 7d.

THE extraordinary voluminousness of this Commission's publications is strikingly illustrated by the fact that the general index runs to 1,086 double-column folio pages.

Annual Report of the Board of Agriculture on Small Holdings for the year 1912. 1913. [Cd. 6770.] Price 5d.

A REPORT by Mr. E. J. Cheney of progress made. The chief feature of this issue is a series of detailed reports relating to some of the most successful individual small holders.

Return showing annually, for each year since 1909, in a summarised form, the imported quantities of certain grains, meat, and sugar; and also the countries from which these supplies of food were derived. 1913. [H. of C. 93.] Price 2d.

AN interesting return showing very strikingly that the relative importance of the different sources of supply of various foods, while the total annual imports are fairly steady or steadily progressive, is subject to wide fluctuation. The almost complete

cessation of imports of beef and mutton from the United States is noticeable.

Return showing (1) the Aggregate Gross Liabilities of the State, the Estimated Assets, and the Exchequer Balances at the close of each Financial Year from 1835-6 to 1912-13, and (2) Expenditure Charged Annually during that period against the Public Revenue on account of the National Debt, and other Payments connected with Capital Liabilities. 1913. [Cd. 6798.] Price 4½d.

Minutes of Evidence taken by the Committee on Irish Finance with Appendices. 1913. [Cd. 6799.] Price 2s.

IN response to continued Parliamentary pressure, the evidence, given before this Committee in 1911 by such of the witnesses who gave their consent to publication, is now published. It does not appear to contain any sensational matter, and is largely concerned with technical detail relating to the manner of calculation of the amount of revenue attributed to Ireland.

Banking and Railway Statistics, Ireland, December. 1912. 1913. [Cd. 6836.] Price 4½d.

THE annual summary prepared by the Department of Agriculture.

The Indian Financial Statement and Budget for 1913-4, and Discussions thereon in the Legislative Council of the Governor-General. 1913. [H. of C. 130.] Price 2s. 6d.

SIR GUY FLEETWOOD WILSON's last statement. He has taken the opportunity to state his position in regard to the Gold Mint question, a topic also dealt with by several speakers in the subsequent discussion. There is little else in this statement of novelty or outstanding economic interest.

Statement Exhibiting the Moral and Material Progress and Condition of India during the Year 1911-2 and the Nine Preceding Years. Forty-eighth Number, being the Fifth Decennial Report. 1913. [H. of C. 220.] Price 4s. 6d.

EVERY ten years the annual Moral and Material Progress Report blossoms out to more ample proportions than usual, and

presents a synopsis of the whole decade, instead of the single year preceding. The present report follows well-accustomed lines, and provides a valuable and very complete work of reference in regard to recent progress and events, particularly in those spheres of Governmental action which are financial or economic. It is largely a summary of the very great number of other official reports, beneath which the Government of India is accustomed to bury its activities, and does not lend itself to any further summary. As its value is primarily that of a work of reference, unlikely to be read right through by anyone, the absence of an alphabetical index somewhat diminishes its usefulness.

Reports by His Majesty's Agent and Consul-General on the Finances, Administration, and Condition of Egypt and the Sudan in 1912. 1913. [Cd. 6682.] Price 7d.

LORD KITCHENER defends his Five Feddan law, designed to give protection to the small cultivator of five feddans and under from expropriation of his land, house, and farming utensils for debt, against various criticisms that have been levelled at it. A Commission is now at work investigating the actual degree of indebtedness of the smaller landowners. The laying of the last stone of the Assouan dam affords an opportunity for taking stock of the general position with regard to irrigation.

Report on Bounties and Subsidies in respect of Shipbuilding, Shipping, and Navigation in Foreign Countries. 1913. [Cd. 6899.] Price 5d.

A VALUABLE work of reference relating to twenty-six foreign countries, based on information obtained by the Foreign Office at the request of the Board of Trade. It appears that direct money subsidies are granted to the greatest extent by Japan (£1,400,000 altogether in 1911). After Japan comes France (£1,335,000 in 1911, apart from postal subventions of £1,105,000). Although various special privileges in the matter of Customs Tariff and railway rates are granted to shipbuilding material in Germany, subsidies for postal services amounting to £350,000 annually are the only direct money payments granted.

Copy of the new United States Tariff Bill, with Comparison of the Proposed and Existing Rates of Duty. 1913. [Cd. 6774.] Price 1s.

THE section of the Bill relating to Income Tax is also given.

Report of the Commissioner of Corporations on the Steel Industry. Part III. Cost of Production: Full Report. Washington: Government Printing Office. 1913. Pp. xxxiv + 569.

The earlier Parts and the preliminary draft of this Part were reviewed in the *ECONOMIC JOURNAL*, June, 1912, p. 323.

Report of the Commissioner of Corporations on the International Harvester Co. Washington: Government Printing Office. 1913. Pp. xxiii + 384.

Summary of the above Report. Washington: Government Printing Office. 1913. Pp. ix + 37.

The following quotations are from the official summary of the "essential features" of this Trust as disclosed by the investigation:—

"A substantially monopolistic position—85 per cent. of the total output—in the harvesting-machine business proper at the beginning.

The organisation of the combination terminated a long period of severe, but by no means destructive, competition among the concerns merged.

An absence of important over-capitalisation. Substantially 90 per cent. of the original \$120,000,000 capital stock was covered by tangible property and working capital. There was in addition a considerable real goodwill.

Acquisitions of competitors and extensions into new lines, until to-day the company is also an important factor in certain other branches of the farm-machinery industry.

Low rates of profit in early years, partly owing to imperfect organisation and internal jealousies, but much higher rates in recent years, averaging about 12½ per cent. in 1909–1911 on net assets (exclusive of goodwill) as estimated by the Bureau.

Prices of machines sold in foreign markets generally higher to retailer and farmer than in United States, but in some cases a lower margin of profit in export trade.

Low manufacturing costs of harvesting machines compared with the average costs of independents; an elaborate selling organisation and ability to grant extensive credits to purchasers. These advantages due to large volume of business and superior financial resources.

Extensive use especially in early years of objectionable competitive practices, e.g., the exclusive clause in dealers' contracts

(later abandoned), monopolisation of dealers, "full line forcing," discriminatory price concessions, attempted control of retail prices. These methods less extensively practised in recent years, but still the source of much complaint.

Monopolistic position of the International Harvester Co. in harvesting machines thus far substantially maintained, while it now controls a considerable and increasing percentage of the business in new lines."

Annuaire de la Législation du Travail, 15^e Année, 1911. Brussels : Libraire A. Denoit. 1913. Pp. xviii+1160. Fr. 8.

The Belgian Ministry of Labour's annual summary of labour legislation in all parts of the world.

CURRENT TOPICS.

A CORRESPONDENT who is interested in the market for Cleveland Warrant Iron writes as follows with regard to the rumours which have recently appeared in the various trade papers :—

"The trade in Cleveland pig iron is in some respects unique, and in the form of a Warrant Store provides at present the only free market in pig iron in the world. This fact, combined with the well-established quality of the iron, gives it a position in the world's markets which the actual output alone would hardly justify. The present suggestion to form a central selling agency for marketing Cleveland pig iron is not the first attempt which has been made by the Ironmasters on the Tees to co-operate and control amongst themselves the selling price of their iron, and it does not appear at the moment of writing that this particular proposal is likely to succeed any better than its predecessors have done. So far as the present proposals are known, they have a dual object, namely, to enable makers to adopt the policy already in vogue on the Continent of setting up a single body which would control the selling price, and also, as a necessary consequence of this, the closing of the Warrant Store and the end of speculation in Warrant Iron.

"It is difficult to decide how far it is possible to justify such a proposal on the broadest considerations. But there can be little doubt that competition amongst various makers has left at times no profit to the majority of them. If it was wisely used, therefore, such a scheme would probably be an advantage to the

producers of Cleveland pig iron. Nevertheless, amongst a considerable portion of the ironmasters the idea of controlling prices was only looked upon with favour because it represented a means by which to bring to an end the Warrant Store, and it was this factor in the situation which led many, when the scheme was first propounded, to believe that it would be successful.

“It is an interesting question as to whether a large store of iron or any other commodity for which warrants are held by the speculating public is over a long period an influence for low or high prices, and it is at least questionable whether the view, so widely held, that it is on the whole a ‘bear’ factor, can be supported by actual facts. If the scheme is successful it will mean that the dislike of the Warrant Store has been the predominant factor in bringing about this result; whereas, if, as appears more probable, it fails,¹ this will mean either that some other method of closing the Warrant Store has been found, or that the advantages offered to the producer have not been sufficient to overcome the inherent dislike which the English manufacturer feels (in a much greater degree than his Continental competitor) for the complicated procedure and restriction of individual freedom which is necessarily involved.”

THE recent General Election in Holland has ended in a severe defeat of the Protectionist proposals. Towards the end of 1910, the Minister of Finance in the Clerical Government, which has since fallen, brought forward Tariff proposals involving the taxation of a great number of articles at rates varying from 3 to 15 per cent. But their defeat at the polls leaves Holland a virtually Free Trade country; and Great Britain's only Continental ally in this policy does not seem likely to abandon it in the near future. Quite apart from the merits of the question, it seems evident that the present is a time exceedingly unpropitious politically for Protectionist proposals. In this connection some pregnant remarks of Sir David Barbour's deserve quotation: “The fall in prices (after 1873) was unfavourable to Free Trade, and gave a great stimulus to Protection because the persons who were suffering from the fall were prepared to support any device that promised to remove their immediate difficulties, and it is beyond doubt that the adoption of a Protective System, in addition to raising the prices of the protected articles, tends

¹ Since the above was written the scheme has definitely failed.

also to lower the general Purchasing Power of the Standard of Value, and to mitigate the effects of Appreciation. The rise in prices which we are now experiencing has the opposite effect, and leads the classes who feel their position growing worse to cry out against Protection. The political agitation in England in favour of what is called Tariff Reform was begun at a time which was unfavourable to any chance of success which it might have possessed under different conditions." Thus, it may not be too fantastic to maintain, that Mr. Chamberlain's policy in South Africa, in so far as it led to an increased output from the mines, helped to set forces moving which were well calculated to bring his other policy to nothing.

A TRADE UNION BANK on co-operative lines has been established in Nicholas Lane, Lombard Street. The working capital is £100,000, and profits will be distributed among the customers. The bank proposes to pay from 3 to 4 per cent. on deposit accounts. "The suggestion," says the *Times*, "first arose out of the difficulty experienced by trade unions in securing loans to finance strikes during the epidemic of labour unrest a year ago"; and the bank chiefly hopes to thrive, it seems, on the business of the Trade Unions, whose annual turnover is said to amount to £5,000,000. The experiment is an interesting one; but it appears *prima facie* to be exceedingly ill-advised. To set up a bank, the customers of which are likely to withdraw deposits and require advances in large amounts at the same time, runs counter to the fundamental principles of banking. If, after paying expenses, the bank is to afford up to 4 per cent. on deposits, its funds cannot be employed in the most gilt-edged securities. Its ability to meet the enormous strain which will fall on it during the next epidemic of strikes must be highly doubtful. Fortunately the Parliamentary Committee of the Trade Union Congress, which has been dealing with the matter, is not yet formally committed to the scheme.

OUR South African correspondent writes (April, 1913) as follows:—The most important economic question in South Africa at the present time is that of taxing land. There are two distinct issues. In the first place there is a movement to transfer municipal rates from the capital value of land and buildings—the present assessment—to the unimproved land value alone. The municipalities of Johannesburg, Pretoria, and most of the small towns in the Transvaal have passed resolutions in favour of the change,

and an attempt was made in the Provincial Council last year to pass a Bill authorising any municipality to adopt site value rating if it wished. The Bill was rejected, but a Commission was appointed to consider this question, along with others affecting local government. The Commission is now sitting; but there will be a new Provincial Council to elect at the end of this year; and as the redistribution of seats which the constitution requires will favour the towns, a strong effort is likely to be made to capture the Council for the reform in rating. The Labour party is emphatically in favour of it. The question is an especially acute one in Johannesburg, because the rapid growth of the city has put enormous profits into the hands of township companies and other land speculators, and the public feel that they may fairly be made to contribute a larger share of the town expenses. The chief difficulty is that the more successful speculators are those who have already sold out, so that many of the present land-owners and shareholders in township companies have made no excessive profits, or possibly have made losses. There is no difficulty with regard to assessment, as unimproved land value and improvements are assessed separately already; in Johannesburg the values are: land, £17,146,000; improvements, £16,458,000.

THE wider issue of the taxation of country land is also before the public. Nearly all the valuable land in the Union of South Africa is private property. The farms were originally of 5,000 acres and upwards, and though many have been divided they are still for the most part excessively large, and in the hands of an unprogressive type of farmer, who merely keeps a few cattle and blocks the way for improvement. There is a very large class of landless country folk, mostly Dutch-speaking. The present Government is supported chiefly by the landowning interests, who of course oppose land taxation; and though immigration would raise the value of land, are opposed to immigration, partly from conservatism, and partly from fear of losing their political supremacy. The landless country people mostly vote as their richer neighbours—the squires—wish, and would need much education before they could be persuaded that a land tax would not fall on tenants and labourers. The Unionist party (the official Opposition) have adopted land taxation as part of their programme, but are lukewarm about it; only the Labour party is active in the matter, and the Labour party is still so very small that nothing is likely to be done at present. Still, public interest is growing.

The Madras Economic Association, which has for its object the promotion of the study of Economics with special reference to Indian conditions, is now pursuing its activities along two lines: firstly, by deputing young men who hold the Research Scholarships of the Association to collect facts at first hand; and secondly, by investigating how far the ordinary theories of Economic Science are applicable under the elementary conditions of distribution and the different psychological *data* found in India. The following highly interesting topics have been taken up for special investigation at present: (1) Village Statistics; (2) Indian Mediæval Guilds; (3) Indian Banking; (4) Wages of the labouring classes in South India. Fellows of the Royal Economic Society will wish the Madras Association great success; and will be much interested to hear the results of these various investigations. The Association is under the presidency of Lord Pentland, Governor of Madras, and Mr. S. S. Iyengar and Mr. M. R. Sundaram Iyer are its secretaries.

Appointments, etc.—Mr. G. Findlay Shirras, M.A., has been appointed to the Minto Chair of Economics in the University of Calcutta, on a salary of £1,000 a year, in succession to Professor Manohar Lal, who has resigned. Mr. Shirras is a member of the Indian Educational Service, and has been lately employed on special duty in connection with the Indian Prices Inquiry.

Dr. A. L. Bowley has, in view of his increasing work at the London School of Economics, resigned the position of Professor of Mathematics and Economics at University College, Reading, which he has held for thirteen years. He is succeeded at Reading by Mr. S. B. McLaren, of Trinity College, Cambridge.

Mr. Arthur Greenwood, B.Sc., Head of the Economics Department at Huddersfield Technical College, has been appointed Lecturer in Economics in the University of Leeds. Mr. Greenwood is succeeded at Huddersfield by Mr. G. R. Carter, M.A., Assistant Lecturer in the University College of Wales, Aberystwyth.

Mr. Conrad Gill, M.A.(Leeds) and B.A.(Camb.), has been appointed lecturer in Economic History in the Queen's University, Belfast. Mr. Gill has been on the staff of Manchester University.

Mr. David Kemp, M.A.(Edin.), has been elected to the Gartside Scholarship, founded for the encouragement of the study of subjects bearing on commerce and industries, in the University of Manchester.

RECENT PERIODICALS AND NEW BOOKS.

Economic Review.

- JULY, 1913. *Famine Relief in India.* D. A. BARKER. *New Ideals in Modern Business.* B. S. TOWNROE. An account of the treatment of their employees by Messrs. J. Crosfield and Sons, of Warrington.

Statistical Journal.

- MAY, 1913. *Gleanings from the Census of Production Report.* A. W. FLUX. An important paper containing numerous inferences and generalisations of the highest interest. *The Tendency of Children to Enter their Fathers' Trades.* S. J. CHAPMAN and W. ABBOTT. On the basis of an investigation in Lancashire, the tendency is found to exist in a high degree.
- JUNE, 1913. *The Census of Ireland, 1911.* SIR W. J. THOMPSON. *Working-class Households in Reading.* A. L. BOWLEY. An interesting example of the method of sampling in social investigation.
- JULY, 1913. *The Trade of the British Empire.* S. ROSENBAUM. The author's object is to investigate the trade relations of the parts of the Empire to one another and of the Empire as a whole to foreign countries. *The Estates of the Colleges of Oxford and their management.* L. L. PRICE. Summary of a paper read before the Surveyors' Institution. *Report of the Special Committee on Morbidity and Mortality Statistics in the United Kingdom.*

Bankers' Magazine.

- JUNE, 1913. *Proportion of Capital and Reserve to Deposits of Banks in Great Britain and Ireland during 1912.* Some interesting comparisons are given with the Banks of France and Belgium. *Growth of Leading Savings Banks.* I. A. H. GIBSON. Glasgow is dealt with in this issue, Manchester in July, and Edinburgh in August.
- JULY, 1913. *The Autumnal Drain of Specie.* The changed character of the drain is well brought out. *The Commonwealth Bank of Australia.* A brief account of this new institution.
- AUGUST, 1913. *Recent Gold Coinages of the World.* *Transactions of the Bank of France for 1912.* *Report of the Imperial Bank of Germany for 1912.*

Women's Industrial News.

- JULY, 1913. *Extending the Trade Boards Act.* J. J. MALLON. By a "Member of all the Trade Boards so far established."

Clare Market Review.

- MAY, 1913. *Ports and Docks.* DOUGLAS OWEN. *Statistics and Social Problems.* J. W. NIXON. *Some Branches of the British Library of Political Science*, VI. *The Collection of Publications of Local Government Authorities.* KENNETH COTTON.

Bulletin of British Library of Political Science.

- JULY, 1913. *Bibliography of John Elliot Cairnes.*

Sociological Review.

- JULY, 1913. *Scientific Management.* J. A. HOBSON. Mr. Hobson calls attention to certain "human disadvantages" in these methods. *Notes on Social and Economic Conditions in Greece.* MAURICE S. THOMPSON.

Scottish Historical Review.

- JULY, 1913. *The Trade of Orkney at the End of the Eighteenth Century.* W. R. SCOTT. A paper read at the Economic History Section of the International Historical Congress.

Quarterly Journal of Economics (Harvard).

- MAY, 1913. *The Plan for a Compensated Dollar.* F. W. TAUSSIG. An important criticism of Prof. Fisher's proposals, on various grounds, but mainly because the adjustment between prices and the volume of currency is not so immediate and automatic as he seems to suppose. *The Tabular Standard in Massachusetts History.* WILLARD C. FISHER. An interesting history of attempts to regulate the value of a depreciated note issue in the latter half of the eighteenth century on a system closely resembling the tabular standard. *The Dominance of the National Union in American Labour Organisation.* GEORGE E. BARNETT. *Tenancy in the Southern States.* BENJAMIN H. HIBBERT. *The Economic Possibilities of Conservation.* L. C. GRAY. *Schumpeter's Economic System.* R. C. MCCREA. *Railway Rates and Joint Cost.* A. C. PIGOU and F. W. TAUSSIG. A brief rejoinder and counter-rejoinder in this controversy.

American Economic Review (Boston).

- JUNE, 1913. *Judicial Interpretation of the Minimum Wage in Australia.* M. B. HAMMOND. *Pensions as Wages.* ALBERT DE ROODE. Pensions should be regarded as a part of real wages. *The Rise of the Iron Moulders' International Union.* H. E. HOAGLAND. *The Rates and Practices of Express Companies.* ARTHUR S. FIELD. *The Equation of Exchange for 1912, and Forecast.* IRVING FISHER.

Political Science Quarterly (New York).

- JUNE, 1913. *The Proposed Sugar Tariff.* R. G. BLAKEY. *The Disintegration of the Tobacco Combination.* A. C. MUHSE.

Annals of American Academy (Philadelphia).

MAY, 1913. A series of articles on *County Government* in the United States.

JULY, 1913. The general subject of this number is the *Cost of Living*. Part I., on *Wage Standards*, includes articles by Prof. Seager, Prof. M. B. Hammond, and Mr. Scott Nearing, proposals for a minimum wage receiving principal attention. Part II. deals with *Family Standards*, i.e., Household Management; Part III. with *Public Services and Control*; and Part IV. with *Concrete Measures for Reducing Cost of Living*.

The Journal of Political Economy (Chicago).

MAY, 1913. *The Relationship of Scientific Management to Labour*.

JOHN P. FREY. Criticises "Taylorism" on the ground that "it seems to give to consideration to workmen more as units in production than as human beings." This number contains two other articles on Scientific Management. *Subsidised Unemployment Insurance*. I. M. RUBINOW. Mainly based on Mr. Gibbon's recent book. *Commerce and Industry in Spain during Ancient and Medieval Times*. LEON AYDZROONI.

JUNE, 1913. *The Spirit and Social Significance of Scientific Management*. MORRIS L. COOKE. Applauds "Taylorism" on the ground that it "means the individualising of the workers, and herein lies the heart of its social significance." *Security Prices and Interest Rates in 1910-12*. WESLEY C. MITCHELL. Brings up to date a number of valuable tables, published in the same Journal in 1910 and 1911, relating to American Stock Exchange securities. *Certain Changes in New York's Position as a Financial Centre*. E. M. PATTERSON. An interesting discussion of the relation between the country banks and those in New York, leading up on various grounds to the general conclusion that "the country is less dependent on New York for cash than in former years." *Bect Sugar and the Tariff*. ROY G. BLAKEY.

JULY, 1913. *The Thirteenth Census*. H. PARKER WILLIS. This number includes three articles on *Scientific Management*.

Bulletin of the U.S. Bureau of Labour (Washington).

No. 112. Decisions of Courts and Opinions affecting Labor, 1912.

No. 114. Wholesale Prices, 1890 to 1912.

No. 115. Retail Prices, 1890 to February, 1913.

Revue d'Économie Politique (Paris).

MAY-JUNE, 1913. *L'Australie et le Régime travailliste*. CHARLES SCHINDLER.

JULY-AUGUST, 1913. *La hausse actuelle de la monnaie, du crédit et des prix—comment y remédier*. IRVING FISHER. *Comment expliquer les mouvements de la population humaine*. CH. TURGEON. *Le Régime douanier colonial*. F. BERNARD. With reference to the French colonies. *Graphiques relatifs à la hausse de l'intérêt*. CH. RIST. Chiefly relating to French securities. *La lutte de la voie ferrée et de la voie d'eau*. M. PORTE.

Journal des Économistes (Paris).

MAY, 1913. *La crise du marché à terme et la proposition de Monzie devant le Parlement.* I. TCHERNOFF. Deals with a recent legislative attempt to regulate speculation.

JUNE, 1913. *Les diverses formes de la mutualité.* YVES GUYOT.

JULY, 1913. *Les Comptes des chemins de fer fédéraux en 1912.* PH. FAVARGER. An account of the financial results of the Swiss railways. *État d'esprit syndicaliste.* F. GARCIN. *La Crise sardinière et la récente sentence arbitrale.* E. GOUAULT.

L'Économiste Français (Paris).

JUNE 14, 1913. *La Revision des Cours des Valeurs Mobilières.* PAUL LEROY-BEAULIEU. The first of six articles on the depreciation of French securities, continued in the issues of June 21, 28, July 5, 12, 19.

JULY 26, AUGUST 9, 9, AND 16. *La Situation financière et les projets d'impôts nouveaux.* PAUL LEROY-BEAULIEU.

Revue Économique Internationale (Brussels).

MAY, 1913. A series of articles on French colonial development in North Africa.

JUNE, 1913. *Le Problème de la Colonisation du Congo Belge.* MOULAE T. *L'Islamisme et la Colonisation de l'Afrique Centrale.* E. CAMMAERTS. *Les Finances Brésiliennes.* G. HAUSER. *Les Chemins de fer Sud-américains.* D. PECTOR.

JULY, 1913. *L'Industrie Cottonnière.* SIR C. MACARA. A brief study of a very general character. *Le Budget de 1913 en France.* YVES GUYOT. *Le Problème budgétaire et l'expansion des forces économiques de la France.* ALBIN HUART.

Le Musée Social (Mémoires et Documents) (Paris).

MAY, 1913. *Le Syndicalisme féminin dans les Industries textiles en Angleterre.* MME. A. TOUGARD DE BOISMILON.

JUNE, 1913. *L'État présent du Syndicalisme mondial.* PAUL LOUIS.

Archiv für Sozialwissenschaft und Sozialpolitik (Tübingen).

MAY, 1913. *Lohnabzüge für Wohlfahrtseinrichtungen.* P. LOTMAR. *Versuch einer Soziologie der bildenden Kunst.* W. HAUSENSTEIN. Rather vague generalisations on the relation of Art to the social and economic outlook of the time. *Der preussische Wohnungsgesetzentwurf.* H. LINDEMANN. *Der "Allgemeine Jüdische Arbeiterbund" zur Zeit der russischen Revolution (1904-1907).* I. An anonymous article, continued in July, on a subject about which little has been known hitherto. *Die Arbeiterversicherung in Russland.* F. LIFSCHITZ. *Der Anteil der Frauen an der Fabrikarbeit in Japan.* E. SIMON (of Nagasaki).

JULY, 1913. *Die Elemente des Wirtschaftslebens.* WERNER SOMBART. By "elements" Prof. Sombart means those essential characteristics without which "menschliche Wirtschaft nicht möglich ist." *Die logische Struktur des historischen Material-*

ismus. S. E. ALTSCHUL. *Eine Untersuchung über die Zukunft des landwirtschaftlichen Grossbetriebs.* R. LEONHARD. *Die Kinderarbeit in Oesterreich I.* W. SCHIFF. *Die Soziale Geschichte der Schultheiss-Brauerei.* F. LENZ.

Schmoller's Jahrbuch (Munich).

PART I., 1913. This Journal is now issued in a new dress, and Schmoller's name for the first time appears formally in the title. *Deutschland und England auf dem Weltmarkte.* KARL RATHGEN. Emphasises the community of interests between the two countries, and discusses the nature of England's misunderstanding of German competition. *Neumerkantilismus und wirtschaftliche Interessen-organisation.* S. TSCHIERSCHKY. *Ethischer Individualismus und soziale Reform in England.* H. LEVY. A study of the national characteristics underlying modern social movements in England. *Die bevorstehende Wohnungsgesetzgebung in Preussen und im Reiche.* G. SEIBT. *Die Arbeitsteilung und die Beschäftigung minderwertiger Arbeitskräfte in der modernen Grossindustrie.* C. HEISS. A study of the effect of large scale organisation of industry on the opportunities for employment of workmen of sub-normal efficiency. *Der Kampf gegen Fleischnot und Fleischteuerung.* K. WALTERMATH. *Die russische Landwirtschaft und der industrielle Protektionismus.* G. VON STRYK. *Die automatische Kontrolle der Preispolitik staatlicher Monopolgesellschaften.* W. MÖLLER. With special reference to the example of a possible German Government monopoly of petroleum. *Der deutsche Zolltarif von 1902.* J. W. HOLLÄNDER. Its origin and history. Continued in the next two numbers. *Das Petroleum monopol: seine Notwendigkeit, Möglichkeit und Organisation.* O. SCHNEIDER. *Neuere Arbeiten über Geldwerteränderung und neuere Preissteigerung.* GUSTAV SCHMOLLER. A review of Prof. Ashley's recent pamphlet and of Mr. Hooker's paper in the Statistical Journal. *Über die Wirtschaftsentwicklung der Karolingerzeit.* P. SAUDER.

PART II., 1913. *Die Festsetzung einheitlicher Preise für Waren und Arbeitsleistungen.* H. PUDOR. *Die Grundzüge der britischen Nationalversicherung von 1911.* G. HUTH. *Ältere deutsche Kartelle.* W. STIEDE. The instances cited range from 1498 to 1836. *Die periodischen Druckschriften Deutschlands.* P. STOKLOSSA. A statistical study. *Die wirtschaftliche Lage Italiens in der Gegenwart.* E. WILMERSDORFFER. *Die Schulze-Delitzschschen Genossenschaften in Posen als ein Bollwerk des Deutschtums.* H. CRÜGER. *Die Preussischen Staatseisenbahnen.* R. MELCHIOR. A comparison with the Pennsylvania Railroad and the London and North-Western Railway. *Russisch-Turkestan und die Tendenzen der heutigen russischen Kolonialpolitik.* O. HOETZSCH. Continued in the next number.

PART III., 1913. *Die Hetze von Alexander Tille und Konsorten gegen Lújo Brentano.* GUSTAV SCHMOLLER. An eloquent and generous tribute to the character and influence of Brentano, who has emerged victorious from the extraordinary series of lawsuits in which he was involved during 1912. Brentano's

defence of trade-unionism brought on him apparently the enmity of a certain section of German employers, who put up certain hack-writers, and especially a man named Tille, to destroy Brentano's reputation for fair and honest dealing with questions of fact. Brentano fought these voluminous attacks in the Courts, who have completely upheld him and have ordered the confiscation and destruction of the slanderous attacks upon his reputation. The controversy turned to a certain extent on some questions of fact relating to the position of trade-unionism in England, and the association of detractors called to their assistance Lord Claud Hamilton, who seems to have made statements about the leaders of the men in England and other matters which were based on very insufficient knowledge. Other railway directors, Prof. Schmoller reports, could but laugh and wonder "aus welcher Arche Noahs," Lord Claud could have emerged. Prof. Schmoller has felt that he could not stand aside when an old and loved comrade, with whom, however, he has not always found himself in agreement, has been so grossly attacked. The article does honour to the spirit of the academic world in Germany. *Die sozialwissenschaftliche Grundlage und Struktur der Malthusianischen Bevölkerungslehre.* W. KÖHLER. *Die Vorgeschichte des Finanzsystems von John Law.* F. K. MANN. *Zur Finanzgeschichte des Ruhrkohlen-Bergbaues.* H. SCHACHT. *Die Wertzuwachssteuer in Literatur und Gesetzgebung.* W. GERLOFF. A review of the very voluminous recent German literature on this subject.

Annalen für Soziale Politik und Gesetzgebung (Berlin).

- PARTS 5 and 6, 1913. *Soziale Theorie der Verteilung* (pp. 82). PROF. MICHAEL TUGAN-BARANOWSKY. *Zur Frage der fachlichen Ausbildung der Arbeiterinnen von sozialpolitischen Gesichtspunkten.* DORA LANDÉ. *Die Einwanderung nach Australien.* ERNST SCHULTZE.

Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung (Vienna).

- PARTS 2 and 3, 1913. *Theorie der Preisverschiebung.* O. SPANN. *Aufgaben und Mittel der staatlichen Verwaltung der direkten Steuern in Österreich.* P. GRÜNWALD. Concluded in the next number. *Die ungarische Industriepolitik.* J. SZTERÉNYI. *Über Bulgariens volkswirtschaftliche Entwicklung.* W. K. WEISS-BARTENSTEIN. *Die staatswirtschaftliche Entwicklung Bulgariens.* V. R. v. POZZI.
- PARTS 4 and 5, 1913. A reply from Schumpeter and a further rejoinder by Böhm-Bawerk relating to a discussion initiated by the latter in Part I. for 1913 on *Eine "dynamische" Theorie des Kapitalzinses.*

Gesellschaft Österreichischer Volkswirte (Vienna).

- JAHREBUCH, 1913. A valuable series of articles including:—*Die ökonomischen Wirkungen des Balkankriegs auf Serbien und Bulgarien.* OTTO NEURATH. *Die örtlichen Produktionsbedingungen der Industrie in Österreich.* F. HERTZ. *Zinsfuss und*
- NO. 91.—VOL. XXIII. K K

Geldverfassung. JOSEF SCHUMPETER. *Die Entwicklung der österreichischen Staatsschulden seit Bestand der Verfassung.* J. PÜREGGER. *Die finanzielle und wirtschaftliche Entwicklung Russlands.* A. v. MARKOW. *Die Brüsseler Zuckerkonvention.* H. FRIESS. *Über die Produktivität der Berufsstände, insbesondere der Beamten.* O. SPANN. *Das französische Bankwesen.* EUGEN KAUFMANN.

Weltwirtschaftliches Archiv.

JULY, 1913. *Die Standortprobleme in der Volks- und Weltwirtschaftslehre.* V. FURLAN. A mathematical and diagrammatic treatment of some problems of international trade. *Tendenzen des italienischen Handels im östlichen Mittelmeer.* R. MICHELS. *Die internationalen Verflechtungen des Versicherungswesens.* ALFRED MANES. *Die internationale Organisation der Petroleumgewinnung und des Petroleumhandels.* J. MENDEL. *Der Tabakmarkt in Holland.* W. DÖHLE.

De Economist (The Hague).

MARCH, 1913. *Nederlandsche bevolkingsstatistiek. I.* H. W. METHORST. Continued in April and June.

*APRIL, 1913. *Nederland en Engeland op Koloniaal muntgebied.* N. P. VAN DEN BERG. A comparison between the currency systems of India and the Dutch Colonies.

MAY, 1913. *De Curaçaosche bank, I.* G. J. FABIUS. *De etablissementen van Landbouw.* J. C. KIELSTRA. Historical.

JULY AUGUST, 1913. *Een ideale waarde-standaard?* G. M. BOISSEVAIN. *Eenige opmerkingen omtrent giroverkeer.* W. M. J. VAN LUTTERVELD. *De Curaçaosche bank, II. Het grondcrediet.* G. J. FABIUS.

Giornale degli Economisti (Rome).

MAY, 1913. *Considerazioni in difesa del giuoco d'azzardo legalmente disciplinato.* T. MARTELLO. A paradoxical polemic against existing legal restrictions upon gambling. *Il prodotto dei trasporti di Merce sulle linee ferroviarie Italiane.* G. MORTARA.

JUNE. *Uno Stato nello Stato.* L. AMOROSO. The Italian railways threaten to be a dangerous "State within the State." *La colonizzazione della Siberia.* JENNY G. KRETSCHMANN. An historical sketch.

JULY. *Il conflitto Nippo-Americano.* UGO DE BENEDETTI. On the strained relations between Japan and the United States. *Numeri indici dello Stato e del progresso economico delle regioni Italiane.* G. MORTARA. An index number constructed from the changes in ten (or twelve) indications of economic progress (e.g., the amount of power employed in industry, the value of successions) shows an advance of 53 per cent. in the decade 1911 for the whole of Italy, and percentages ranging from 32 to 81 for different provinces. The data are also employed *statically* to show the economic relation of the provinces to the kingdom at one and the same period. *Considerazioni in difesa del giuoco.* T. MARTELLO. Continued from June, and concluded.

La Riforma Sociale (Turin).

JUNE-JULY, 1913. *Il problema della popolazione in Italia.* ACHILLE NECCO. The causes of the particularly rapid decline of natality in Piedmont and Liguria are investigated; and it is found that different explanations—decline in the number of marriages or in the proportion of women of marriageable age, the later age of marriage, increased diffusion of property, &c.—apply with different force in different localities. A further issue of the *Riforma* consists of *L'Italia Economica nel 1912*, an annual record of the commercial, industrial, and financial condition of Italy.

NEW BOOKS

English.

BARKER (D. A.). *The Theory of Money.* Cambridge: University Press. 1913. Pp. vii+141. 1s. net.

[A further volume in the series of *Cambridge Manuals*, in continuation of *Cash and Credit* by the same author. Mr. Barker has "attempted in this book to set forth the more important results of recent American work, without omitting those divisions of the subject which are better known to English students." A clear, elementary text-book, of not very penetrating quality, by a close disciple of Professors Fisher and Kemmerer. Perhaps the book has been too easily compiled—the reader may feel that not very much turmoil of spirit has gone to the making of it.]

CHATTERTON (ALFRED). *Statistical Information regarding the External Trade of the Mysore State during the decennial period, 1901-11.* Bangalore: Vokkaligara Sangha Press. 1913. Pp. 30.

[A valuable summary of the material condition of Mysore, prepared for the Mysore Economic Conference.]

Cotton Growing in Egypt and the Anglo-Egyptian Sudan. Manchester. 1913. Pp. 347.

[Official Report of the visit of the delegation of the International Federation of Master Cotton Spinners' and Manufacturers' Associations to Egypt (Oct.-Nov. 1912) and a report by the Secretary, Mr. Arno Schmidt, on a visit to the Sudan. Sir Reginald Wingate contributes the preface.]

DEHN (R. M. R.). *The German Cotton Industry.* Manchester: University Press. 1913. Pp. 109. 2s. net.

[A report by the Gartside Scholar in the University of Manchester, published as No. xiv in the University's *Economic Series*. To be reviewed.]

DUNLOP (O. JOCELYN). *The Farm Labourer: the History of a Modern Problem.* London: Fisher Unwin. 1913. Pp. 268. 7s. 6d. net.

[To be reviewed.]

FAY (C. R.). *Co-partnership in Industry.* Cambridge: University Press. 1913. Pp. 144. 1s. net.

[In the *Cambridge Manuals* Series. To be reviewed.]

FOSTER (WILLIAM). *The English Factories in India, 1642-1645.* Oxford: Clarendon Press. 1913. Pp. xxxvii + 339. 12s. 6d. net.

[A calendar of documents in the India Office. The seventh volume of this series. Reviewed above.]

GASKELL (THOMAS PENN). *Protection paves the path of Prosperity.* London: P. S. King. 1913. Pp. xii + 147. 3s. 6d. net.

[“A few facts and arguments showing the absurdities of the Free Food cry, and the misleading and inaccurate assertions made in support of that cry.” To be reviewed.]

GIBBS (MRS. PHILIP), edited by. *First Notions of Social Service.* London: P. S. King. 1913. Pp. 80. 6d. net.

[*Catholic Studies in Social Reform.* V.]

GILCHRIST (R. N.). *Survey of a Calcutta District.* Calcutta: Edinburgh Press. 1913. Pp. 18.

[An interesting paper, read before the Social Study Society of Calcutta, on the Housing and Social Conditions of a district of the City, briefly opening up what is, so far as printed authorities go, almost entirely new ground.]

GREEN (F. E.). *The Tyranny of the Countryside.* London: Fisher Unwin. 1913. Pp. 261. 5s. net.

[To be reviewed.]

HIRST (F. W.). *The Six Panics and other Essays.* London: Methuen. 1913. Pp. vi + 271. 3s. 6d. net.

[The “other essays” deal with very various topics. To be reviewed.]

Indian Currency and Finance. Bombay: The Times Press 1913. Pp. 241.

[“A series of articles dealing with various phases of Indian Currency and Financial questions published in *The Times of India* between March, 1910, and April, 1913.”]

INSTITUT SOLVAY. *The Policy of Social Reform in England.* Brussels: Misch & Thron. 1913. Pp. xiii + 103.

[Lectures delivered at the Institute by members of the Eighty Club: Mr. Philip Morrell on *The Rural Problem*, Mr. A. G. Gardiner on *Social Policy*, Sir John Brunner on *Industrial Politics*, and Mr. Charles Mallet on *Fiscal Policy*.]

IRISH TAXPAYER. *The Finance of the Home Rule Bill.* Dublin: Sealy, Bryers, and Walker. 1913. Pp. 18.

[Suggestions for the amendment of the financial clauses of the Home Rule Bill.]

KEYNES (JOHN MAYNARD). *Indian Currency and Finance.* London: Macmillan. 1913. Pp. viii + 263. 6s. net.

[To be reviewed.]

KOLTHAMMER (F. W.). *Some Notes on the Incidence of Taxation on the Working-class Family.* London: Ratan Tata Foundation. 1913. Pp. 16.

[The first of a series of *Memoranda on Problems of Poverty* to be published by the Ratan Tata Foundation, which is connected with the London School of Economics. The author has attempted to estimate the burden of food taxation on families of different incomes and in various localities.]

LEETHBRIDGE (SIR ROPER). *The Indian Offer of Imperial Preference*. London: P. S. King. 1913. Pp. xii + 171. 2s. 6d. net.

[With an introduction by Mr. Austen Chamberlain. To be reviewed.]

LEVY (HERMANN). *Economic Liberalism*. London: Macmillan. 1913. Pp. ix + 124. 4s. 6d. net.

[Translated from the German edition the title of which, "*Die Grundlagen der ökonomischen Liberalismus in der Geschichte der englischen Volkswirtschaft*," better describes the scope of this brief historical study. The German edition is reviewed above.]

MORSE (H. B.). *The Trade and Administration of China*. Revised edition. London: Longmans. 1913. Pp. xiii + 466. 10s. 6d. net.

[This standard work, which was first published in 1908 and reviewed in the *Economic Journal*, vol. xviii, p. 295, now appears in a second edition, revised but not apparently much changed. Mr. Morse's account of this Chinese Currency, in particular, has taken the position of the principal authority on this subject.]

OAKENFULL (J. C.). *Brazil in 1912*. London: Robert Atkinson. 1913. Pp. 498.

[A description of commercial products, etc., prepared for free distribution.]

PARKINSON (MR. HENRY). *A Primer of Social Science*. London: P. S. King. 1913. Pp. xii + 276. 2s. net.

[An elementary manual prepared for the Catholic Social Guild by the Rector of Oscott College Birmingham.]

PATAUD (EMILE) and POUGET (EMILE). *Syndicalism and the Co-operative Commonwealth (How we shall bring about the Revolution)*. Oxford: The New International Publishing Company. 1913. Pp. xvi + 237. 2s. 6d. net.

[A Syndicalist Manifesto. Translated from the French by Cyril F. Charles; Foreword by Tom Mann; preface by Peter Kropotkin; drawings by Will Dyson. Reviewed above.]

PETAVEL (J. W.). *The Other Great Illusion*. London: George Allen. 1913. Pp. 69. 6d. net.

[Based on a series of articles in the *Westminster Gazette*. "The object of this book is primarily to draw more attention to the facts of modern social economics which show that present day conditions demand an essentially constructive programme of social reform and that therefore the modern social question need not set class against class."]

REINHEIMER (HERMANN). *Evolution by Co-operation: A Study in Bio-Economics*. London: Kegan Paul. 1913. Pp. xiii + 200. 3s. 6d. net.

[More biological than economic, and not concerned, as the title might suggest, with the Co-operative Movement.]

ROBINSON (M. FOTHERGILL). *The Spirit of Association*. London: John Murray. 1913. Pp. x + 403. 6s. net.

[An historical "account of the Guilds, Friendly Societies, Co-operative Movement, and Trade Unions of Great Britain." Reviewed above.]

ROWNTREE (B. SEEROHM) and KENDALL (MAY). *How the labourer lives: A Study of the Rural Labour Problem*. London: Nelson. 1913. Pp. 342. 2s. net.

[To be reviewed.]

ST. LEWINSKI (JAN). *The Origin of Property and the Formation of the Village Community*. London: Constable. 1913. Pp. xi + 71. 3s. 6d. net.

[Lectures delivered at the London School of Economics. Based on the study of a very rich Russian literature dealing with primitive forms of property. To be reviewed.]

SMIRKE (R. S.). *Reports on Birmingham Trades, prepared for use in connection with the Juvenile Employment Exchange*. 4 vols. London: H.M. Stationery Office. 1913. Pp. 8 + 16 + 7 + 12.

[These handbooks, which deal respectively with Sporting Guns and Rifles, Electro-Plate Trade, Printing and Allied Trades, and Jewellery, are the first of a series under official auspices "which it is proposed to issue on the principle trades and occupations in Birmingham."]

SOMBART (WERNER). *The Jews and Modern Capitalism*. Translated by M. Epstein. London: Fisher Unwin. 1913. 15s. net.

[The German edition was reviewed in the *ECONOMIC JOURNAL*, vol. xxii, p. 294.]

UNWIN (MRS. COBDEN). *The Land Hunger—Life under Monopoly*. London: Fisher Unwin. 1913. Pp. 234. 2s. net.

[“Descriptive letters and other testimonies from those who have suffered,” with an introduction by Mrs. Cobden Unwin and an essay by Brougham Villiers. To be reviewed.]

WEBB (CLARENCE A.). *Valuation of Real Property*. Third edition, revised and enlarged by Arthur Hummings. London: Crosby Lockwood. 1913. Pp. xii + 340. 7s. 6d. net.

[“A Guide to the Principles of Valuation of Land and Buildings, etc., for various purposes, including the taxation of land values.” This work, the first edition of which was published in 1909, and reviewed in the *ECONOMIC JOURNAL*, Vol. XIX, p. 579, is now brought up to date, and a chapter on Tithe Rent-charge added. It is of a very technical character but seems well adapted for purposes of reference by non-experts.]

WRIGHT (REV. THOMAS), edited by. *Sweated Labour and the Trade Boards Act*. Second edition: thoroughly revised and brought up to date. London: P. S. King. 1913. Pp. 78. 6d. net.

[*Catholic Studies in Social Reform*. II.]

American.

BABSON (ROGER W.) and MAY (RALPH). *Commercial Paper: A Text Book for Merchants, Bankers, and Investors*. Wellesley Hills, Mass.: Babson's Statistical Organisation. London: Effingham Wilson. 1913. Pp. 246. 8s. 6d. net.

[“The book is primarily written for the officers of our nation's twenty thousand banks, to aid them in selecting the best of such paper.” To be reviewed.]

BEARD (CHARLES A.). *An Economic Interpretation of the Constitution of the United States*. New York: Macmillan Company. 1913. Pp. vi + 359. 10s. net.

[The author, who is an Associate Professor of Politics in Columbia University, maintains the thesis that economic factors played an important part in determining the nature of the American Constitution. Reviewed above.]

BRISCO (NORRIS A.). *Economics of Business*. New York: Macmillan Company. 1913. Pp. xiv + 390. 6s. 6d. net.

[To be reviewed.]

GLOCKER (THEODORE W.). *The Government of American Trade Unions*. Baltimore: Johns Hopkins Press. 1913. Pp. 242. \$1.

[*Johns Hopkins University Studies in Historical and Political Science* XXXI. 2. To be reviewed.]

INNES (A. MITCHELL). *What is Money?* New York: Banking Law Journal. 1913. Pp. 32. 25 cents.

[Reprinted from the *Banking Law Journal*, May, 1913. Some interesting theories on the history of Currency practice. To be reviewed.]

KLEECK (MARY VAN). *Artificial Flower Makers*. New York: Survey Associates. 1913. Pp. xix + 261. \$1.50.

[“This book describes the results of an investigation made by the Committee on Women's Work of the Russell Sage Foundation, and is the second in a series of studies of the condition of women's work in important trades in New York City.”]

San Francisco Relief Survey: *The Organisation and Methods of Relief used after the Earthquakes and Fire of April 18, 1906*. New York: Survey Associates. 1913. Pp. xxv + 483. \$3.50.

[Compiled by the Russell Sage Foundation from studies by six different authors. With numerous illustrations. To be reviewed.]

French.

ANDRÉADÈS (A.). *Les Idées financières de l'Abbé de Saint-Pierre*. Paris: Giard & Brière. 1912. Pp. 48.

[Reprinted from the *Revue de Science et de Législation financières*.]

ANDRÉADÈS (A.). *Ali Pacha de Tébélîn: Economiste et Financier*. Paris: Leroux. 1912. Pp. 34.

[Reprinted from the *Revue des Études grecques*. An historical study on a phase of Turkish rule in Greece.]

BUELENS (J.). *Les Employés en Allemagne: leur situation sociale et leur Contrat d'Emploi: Législation et Revendications*. Anvers: Ch. & H. Courtin. 1913. Pp. xv + 327. Fr. 6.

[A publication of the *École des Sciences Politiques et Sociales de Louvain*. To be reviewed.]

DUFOURMANTELLE (MAURICE). *Les Prêts sur l'Honneur (Assistance et Crédit populaire)*. Paris: Giard & Brière. 1913. Pp. 300. Fr. 4.

[*Ouvrage récompensé par l'Académie des Sciences Morales et Politiques*. A study of semi-philanthropic institutions for making loans on personal credit to members of the working class who are in temporary difficulties.]

EXPERT-BEZANÇON (JACQUES). *Les organisations de défense patronale*. Paris: Henry Paulin.

[An account of Employers' Association.]

GUYOT (YVES). *L'ABC du libre Échange*. Paris: Alcan. 1913. Pp. vii + 212. Fr. 2.

[A manual on a very small scale published by the *Ligue du Libre-Échange*. M. Guyot makes a good deal of the failure of the Tariff Reformers in England.]

HALBWACHS (MAURICE). *La classe ouvrière et les niveaux de vie: Recherches sur la hiérarchie des besoins dans les Sociétés industrielles contemporaines.* Paris: Alcan. 1913. Pp. xvii + 491. Fr. 7.60.

[The object of this book is to define the limits of the working class, to explain its unity, and in particular to investigate what facts are known in regard to its consumption. To be reviewed.]

HUART (ALBIN). *L'Organisation du Crédit en France.* Paris: Giard & Brière. 1913. Pp. 351. Fr. 7.

[To be reviewed.]

LABORDÈRE (MARCEL). *Mouvements de l'Or aux États-Unis.* Paris: Coulommiers. 1913. Pp. 50.

[Reprinted with additions from the *Revue de Paris*, March, 1913. M. Labordère traces with acute analysis the relation between the tendency of the United States in various years to import or export gold and the periodic crises and inflations in that country. In an appendix he brings up to date for 1911 his very valuable *Tableau des Mouvements de l'or dans le monde*, in which the net import or export of gold in every country of the world is recorded as accurately as the available data permit.]

LENOIR (MARCEL). *Études sur la formation et le mouvement des prix.* Paris: Giard & Brière. 1913. Pp. viii + 201.

[A mathematical and statistical work. To be reviewed.]

KEY (HELMER). *La Vie Économique de la Suède.* Paris: Plon-Nourrit. 1913. Pp. 166.

[To be reviewed.]

LEENER (G. DE). *La Politique des Transports en Belgique.* Brussels: Misch & Thron. 1913. Pp. ix + 320.

[A publication of the Solvay Institute. The author is opposed to a policy of extending the waterways in Belgium. To be reviewed.]

German.

ARNOLD (ERNST GÜNTHER). *Untersuchungen über die Diskontierung von Buchforderungen und ihre volkswirtschaftliche Bedeutung in Deutschland.* Munich: Duncker & Humblot. 1913. Pp. xiii + 80. M. 2.50.

[By an officer of the Berlin Disconto-Gesellschaft.]

DEDREUX (RUDOLF). *Der Suezkanal im internationalen Rechte unter Berücksichtigung seiner Vorgeschichte.* Tübingen: J. C. B. Mohr. 1913. Pp. xiv + 145. M. 5.

[*Abhandlungen aus dem Staats-, Verwaltungs- und Völkerrecht*, XIII. i.]

HAASE (DR. AUGUSTIN). *Die modernen Lösch- und Ladeeinrichtungen und ihre Bedeutung für die Seeschiffahrtsbetriebe.* Jena: G. Fisher. 1913. Pp. 112. M. 3.

[*Abhandlungen des staatswissenschaftlichen Seminars zu Jena*, vol. xii, part 2. Reviewed above.]

KAUFMANN (A.). *Theorie und Methoden der Statistik: Ein Lehr- und Lesebuch für Studierende und Praktiker.* Tübingen: J. C. B. Mohr. 1913. Pp. xii + 540. M. 16.

[A substantial treatise by a Professor of Statistics at St. Petersburg. To be reviewed.]

KRIES (WILHELM VON). Seezollverwaltung und Handelsstatistik in China. Jena: Fischer. 1913. Pp. x+111. M. 3.50.

[In Dr. Harms' Series *Probleme der Weltwirtschaft*. By an officer of the Chinese Customs.]

LIEFMANN (ROBERT). Beteiligungs- und Finanzierungsgesellschaften: Eine Studie über den modernen Kapitalismus und das Effektenwesen in Deutschland, den Vereinigten Staaten, der Schweiz, England, Frankreich und Belgien. Jena: G. Fischer. Pp. xiv+626. M. 16.

[A second and enlarged edition of Professor Liefmann's encyclopædic work on Investment Trusts, Holding Companies, Issuing Institutions, Development and Investment Companies, and the like. In the first 112 pages the types of Company under discussion are classified; in the 500 which follow companies of these types, past and present, in various countries of the world, are catalogued. In the case of England, the information is limited for the most part to what can with diligence be extracted from the Stock Exchange Official Intelligence and similar works of reference. Interpretation or comment based on direct knowledge is markedly absent.]

MAIER (G.). Das Geld und sein Gebrauch. Leipzig: Teubner. 1913. Pp. 126. M. 1.50.

[A manual in the *Aus Natur und Geisteswelt* Series.]

PLENGE (JOHANN). Von der Diskontopolitik zur Herrschaft über den Geldmarkt. Berlin: Springer. 1913. Pp. xxvi+431. M. 12.

[A full discussion of the present position of the Reichsbank and a criticism of it. To be reviewed.]

RICCI (UMBERTO). Das statistische Bureau des Internationalen Landwirtschaftlichen Institutes. • Brunn: F. Irrgang. 1912. Pp. 34.

[An account of the activities of the International Institute of Agriculture at Rome, reprinted from the *Statistische Monatschrift*.]

SIGERUS (A.). Handelsbetriebsstatistik: mit besondere Berücksichtigung der Warenhandelsbetriebe. Leipzig: Teubner. 1913. Pp. iv+82. M. 3.60.

[A publication of the *Deutsches Statistisches Zentralblatt*.]

SILBERGLEIT (H.). Ergebnisse der bisherigen Versuche kommunaler Fleischversorgung in den grosseren deutschen Städten. Berlin: Puttkammer & Muhlbrecht. 1913. Pp. 43.

[*Mitteilungen des Statistischen Amtes der Stadt Berlin*. III. To be reviewed.]

STEINBERG (M. W.). Das obligatorische Schiedsgerichtswesen in Neuseeland. Berlin: Gustav Schade. 1913. Pp. 100.

[An Inaugural-Dissertation. To be reviewed.]

TUGAN-BARANOWSKY (MICHAEL). Soziale Theorie der Verteilung. Berlin: Springer. 1913. Pp. 82. M. 2.80.

[In his theory of Distribution Professor Tugan-Baranowsky subscribes neither to the "marginal" nor to the Marxian school, but claims to have something in common with each.]

WICKSELL (KNUT). Vorlesungen über Nationalökonomie auf Grundlage des Marginalprinzipes: Theoretischer Teil. Vol. I. Jena: Fischer. 1913. Pp. xi+290. M. 6.

[Translated from the Swedish. This first volume covers more or less the same ground as Prof. Wicksell's former book *Ueber Wert, Kapital und Rente*. To be reviewed.]

Italian.

GINI (CORRADO). L'equazione dello scambio e il potere di acquisto della moneta. Rome. 1913. Pp. 16.

[A review of the recent work of Professors Fisher and Benini, reprinted from the *Rivista Italiana di Sociologia*.]

SUPINO (CAMILLO). La Navigazione dal punto di vista economico. Milan: U. Hoepli. 1913. Pp. xi+450. L. 7.50.

[Third edition, revised and enlarged. To be reviewed.]

TURONI (COSTANTINO BRESCIANI). La Ricchezza delle Città. Palermo: Luigi Gaipa. 1912. Pp. 100.

[Extracted from Vol. II of the *Annali del Seminario Giuridico* of the University of Palermo.]

TURONI (COSTANTINO BRESCIANI). Le Variazioni "cicliche" dei Prezzi. Palermo: Luigi Gaipa. 1913. Pp. 58.

[Extracted from Vol. II of the *Annali del Seminario Giuridico* of the University of Palermo.]

THE ECONOMIC JOURNAL

DECEMBER, 1913

THE PURE THEORY OF UTILITY CURVES.

INTRODUCTION.

THE object of the following investigations is to clear up certain theoretical points which cannot be dealt with precisely by the ordinary diagrams. Part I. deals with the apparatus to be employed. In the demand curves, used in discussing the exchange of aggregate quantities of goods against utility or money or other goods, the ordinate represents the aggregate sacrificed and the abscissa the aggregate acquired. These curves may also be regarded as the locus of points where the straight lines from the origin, representing the various possible ratios of exchange, touch constant utility curves—a constant utility curve being such that all the bargains represented by points on it would yield the same net utility. Hence we can sometimes get a more precise knowledge of what is involved in drawing a demand curve in a particular way by *going behind* the demand curve, as it were, and considering its relation to the constant utility curves. The underlying significance of the apparatus introduced in Part I. depends on a modification of this idea. Instead of considering the net utility of an *exchange*, we consider the resultant utility obtained from the acquisition of two commodities which both contribute to the utility positively. This gives rise to two new kinds of demand curve; one for the case in which the total expenditure on the two commodities varies while their prices remain constant, the other for the case in which the total expenditure is fixed while the price of *one* of the commodities varies. The first of these new demand curves enables problems to be attacked diagrammatically, in which the marginal utility of money need not be assumed constant. In order to interpret the meaning of the various shapes

which these curves can assume, we investigate their relation to the constant utility curves, upon which, as in the former case, they ultimately depend.

In Part II. the analytical conditions which govern the shape of the constant utility curves are elucidated. Criteria are given for distinguishing between three types of the resulting demand curves, and precise definitions are introduced for the terms "complementary" and "competitive" as applied to commodities.

In Part III. the two kinds of demand curve defined above are further discussed, particularly the case where the prices of the commodities are constant and the total expenditure on them varies. It is found possible to analyse the case in which increased total expenditure *diminishes* the amount bought of one of the commodities, as well as the standard case in which more of both commodities is bought when there is more to spend. Similarly, when the demand curve is reached, for which one of the commodities varies in price while the total expenditure is fixed, we can analyse the case in which an increased price leads to an *increase* of the amount of the commodity bought (*i.e.*, Giffen's paradox relating to the expenditure of certain classes on wheat). Incidentally, it is found possible to give a more precise definition of the marginal utility of money than that commonly employed.

In Part IV. the problem of more than two variables is attacked; and the question of the maximum product (or utility) derivable from the expenditure of a given sum on n factors (or commodities) is discussed. The general conditions for a true maximum are then investigated. This is, perhaps, rather of mathematical than of strictly economic interest; but it serves to round off what would otherwise be incomplete.

PART I.

§ 1. For the purpose of raising certain economic problems, a modification of Professor Edgeworth's "indifference curves" is here employed.

In Edgeworth's curves the co-ordinates of any point represent two variable quantities, one of which is acquired and the other is sacrificed in return for the former. The acquisition yields utility, the sacrifice disutility. The net utility thus increases with increase of acquisition or with decrease of sacrifice. The properties of Edgeworth's curves are summarised in § 2.

§ 2. As the diagrams have to be limited to *two* dimensions, we cannot represent by any third co-ordinate the variation in the

measure of the net utility, arising out of the acquisition and sacrifice taken together. This difficulty is met by constructing curves of constant utility. These are such that the net utility for bargains represented by all the different points on any one curve is the same.

Thus if x measures the amount acquired and z the amount sacrificed, the net utility for the point P , whose co-ordinates are x, z , has a value depending on the amounts represented by these co-ordinates. And the locus of all points, yielding the same net utility as P , forms the constant utility curve through P .

The constant utility curve U_0 which passes through the origin O is that of zero-utility—i.e., for all points along this curve the sacrifice of z balances the acquisition of x , so as to yield neither

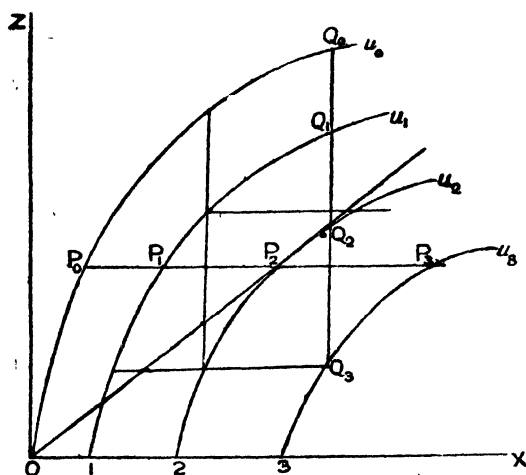


FIG. 1.

more nor less net utility than if no sacrifice and no acquisition had been incurred. For all points along the curve U_1 , which passes through the point 1 (on x), the net utility is such as would be yielded by an acquisition, $x=\overline{O1}$, if no sacrifice were incurred. Along U_2 , which passes through the point 2, the net utility is equal to that yielded by $x=\overline{O12}$, if no sacrifice were incurred; and so on. (See Fig. 1.)

In the standard case:—

(a) In order to obtain equal additional increments of net utility we require continually increasing increments of acquisition or continually decreasing increments of sacrifice.

Thus the lengths $P_0 P_1, P_1 P_2, P_2 P_3$, &c., increase; also the lengths $Q_0 Q_1, Q_1 Q_2, Q_2 Q_3$, &c., increase.

(b) Between any two utility curves the x distances increase as we move upwards, while the z distances decrease as we move rightwards.

(c) The curves are concave to x , convex to z .

(d) The curves become flatter as we move rightwards along any horizontal line or upwards along any vertical line.

Suppose, now, that x is offered us in return for z ; and that we can acquire x by sacrificing z on certain given terms; that is, by giving z for x at a fixed ratio. The locus of points, for which the ratio of z to x is constant, is a straight line through the origin. Any such straight line may, therefore, be called a Price-Line. When the ratio of exchange is determined for us, we shall obviously maximise our net utility by closing our bargain at the point where the price-line, representing the ratio of exchange, touches one of the utility-curves.

If, after we have agreed to acquire x (say) in return for z , we are offered a further amount on more favourable terms, we shall again pass to a position where the line representing the new price, drawn from our former resting-place, touches another utility-curve.

And so on.

The crooked line $OC_1 C_2'' C_3 \dots$ (see Fig. 2) represents the course of a price-line involving changes in the terms on which we can acquire x in return for z .

Now consider the other party to the transaction who sacrifices x in order to acquire z . The general character of his utility curves will be the same as that of the first party with x and z interchanged. Hence, if the two parties make a succession of contracts with one another on alterable terms, a crooked price-line will represent their transactions, in which the conclusion of each contract is represented by the point where the price-line (representing the terms of the current contract) drawn from the point representing the conclusion of the previous contract touches a utility-curve of one of the two parties earlier than one of the other. Further, as long as the next section lies between the two utility curves, further exchanges are made, since they add to the utility of both parties; but, when finally the new section of the price-line touches both the utility curves simultaneously, exchange ceases. (See Fig. 2.)

The construction of the ordinary supply or demand curves is based on the assumption that the whole exchange is transacted on unaltered terms. This is a practically legitimate assumption in the case of frequently recurrent exchanges; that is, when there

is a *continual* demand and supply for "consumed" commodities. These curves may be called "Offer" curves. There are two ways of constructing such curves, both of which represent precisely the same facts. The more familiar plan is to make the ordinate y stand for "Price," *i.e.*, for the ratio of z to x , where z and x are the total quantities exchanged. The less familiar plan (which is here throughout adopted) is to use as co-ordinates the total quantities z and x themselves. Now, the connection between an "offer" curve, and the series of constant utility curves (for the party making the offer) can be explained as follows: The "offer" curve is the locus of points where the straight lines *from the*

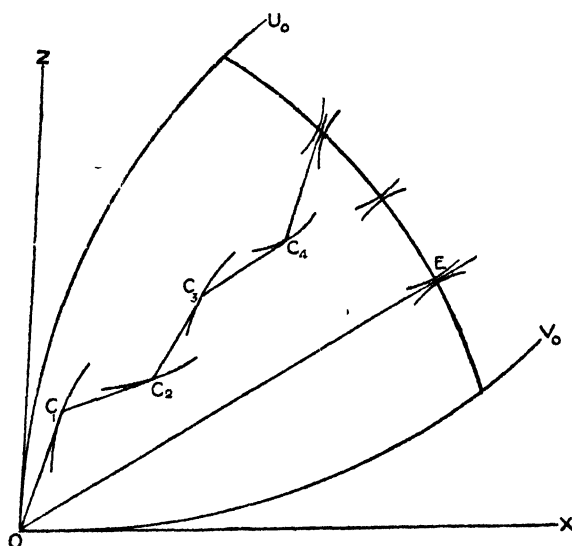


FIG. 2.

origin, representing the various possible ratios of exchange, touch one of the constant utility curves. Thus, where the demand-curve cuts the supply-curve, the utility curves of the two parties have a common tangent *which passes through the origin*. This tangent represents an *unaltered* rate of exchange. In all cases, transactions cease at a point where the two utility curves *touch*. The speciality of the equilibrium, under conditions where the whole exchange is made on unaltered terms, is that this common tangent passes straight through the origin. (See Fig. 2.)

On the other hand, if one party (say, he who is acquiring x by sacrifice of z) has control over the production, then the terminus of exchange is the point where the *supply-curve* (instead of the

price-line) *touches* one of his utility curves. This occurs, for example, when a person supplies his own needs by his own labour. (See Fig. 3.)

§ 3. The modification of Edgeworth's diagrams, which is here proposed, is in effect equivalent to turning them upside down. This procedure answers the following purposes:—First, it enables us to deal naturally with cases in which two quantities contribute *positively*—instead of one positively and the other negatively—to the resultant utility. Secondly, it can be applied by analogy to the case in which *any number* of variables contribute to utility or to production. Thirdly, it is specially available for the case in which the monetary resources of the consumer have (for the purposes of the problem in hand) a *fixed limit*.

The immediate results of this transformation are:—

- (1) That the utility curves are *convex* to both axes, instead of

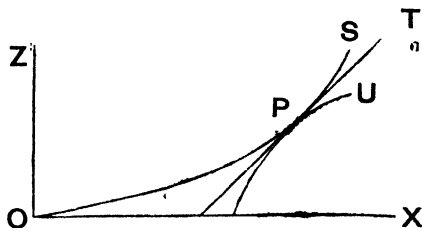


FIG. 3.

being convex to the sacrifice axis and concave to the acquisition axis.

- (2) That the values of the two co-ordinates vary along a utility curve in *opposite senses*, instead of in the same sense.

- (3) That the price-lines *cut the two axes* instead of starting from the origin.

- (4) That the price-lines may be made to vary, not only in direction, but also in *their abscissæ*.

Thus the accompanying diagram shows how three Price-Lines P_1T_1 , P_2T_2 , P_3T_3 may touch three utility-curves at the respective points P_1 , P_2 , P_3 . (See Fig. 4.)

Thus let ξ , ζ represent prices of x , z ; and μ the amount of money expended on them. Then the price-lines are represented by the equations

$$x\xi + z\zeta = \mu,$$

i.e.

$$\frac{x}{\mu/\xi} + \frac{z}{\mu/\zeta} = 1.$$

The abscissa OT along $Ox = \mu/\xi$; i.e., the amount of x which could be bought for money μ .

The abscissa Ot along $Oz = \mu/\zeta$; i.e., the amount of z which could be bought for money μ .

Thus any point on tPT represents the amounts of x and of z that might be bought, when the price of x is ξ , that of z is ζ , and the amount spent on the two together is μ .

Provided we assume that the utility curves descend convexly, it is obvious that the resultant utility is a *maximum* where this price-line *touches* a utility-curve.

Again, where two price-lines, such as P_1T_1 and P_2T_2 , are parallel, we represent constant values of ξ and ζ with varying

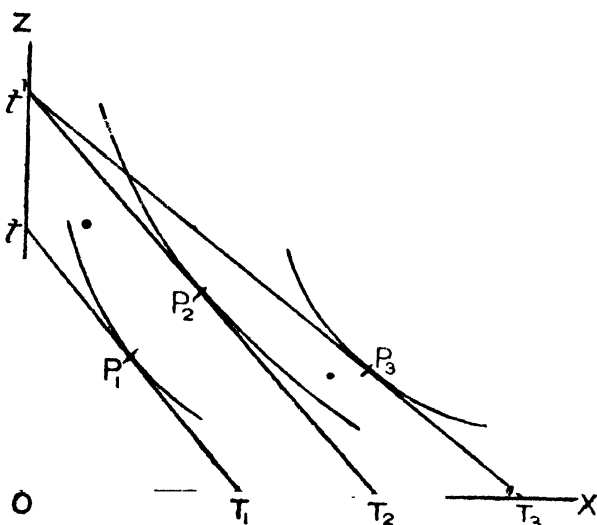


FIG. 4.

values of μ : the ratio of variation being given by the ratio of OT_2 to OT_1 .

Where two price-lines, such as P_2T_2 and P_3T_3 , cut on the axis of z at the same point t' , we represent constant values of ζ and μ with varying values of ξ : the ratio of variation being given (inversely) by the ratio of OT_3 to OT_2 .

In the figure given, a rise in money expended such as to shift the point of maximum utility from P_1 to P_2 leads to an increase in the purchase both of x and of z ; and a fall in the price of x such as to cause a shift from P_2 to P_3 leads to an increase in the purchase of x and a decrease in that of z .

In the former case the money expended has increased, without changes in the prices; in the latter, the price of x has fallen, while the price of z and the total expenditure have remained unaltered.

This illustration shows how we may construct two kinds of demand-curves : (a) that in which the total money expended varies while the prices of the commodities are constant, as from P_1 to P_2 ; (b) that in which the price of *one* commodity (say x) varies, while the total expenditure is constant and the prices of other commodities are constant.

A curve drawn through P_1 and P_2 , &c., will represent the former; a curve drawn through P_2 and P_3 the latter. The former kind of demand-curve may be called a varying *expenditure* curve; the second, a varying *price* curve. In both cases all other relevant quantities, potentially variable, are taken as constant.

§ 4. The character of the varying expenditure curve will be considered at length in Part II. From it the characteristics of the varying price curve can be conveniently deduced.

The principal problems to be considered are :—

(1) What precise conditions are involved by our assumption, that the utility curves “descend convexly,” which is required if the tangent solution for the price-line is to yield a true maximum. [See § 9.]

(2) Upon what special conditions an increase or a decrease in one or other of the amounts bought depends for changes in the position of the price-line. [See §§ 15, 16, 19, 20.]

Before passing on to these problems, it is worth while to point out that the diagram measures only the quantities x and z . There are no lines in the figure which measure the utility itself. The several utility-curves are arranged in a scale of increasing value as we pass to the right and above; and thus the “distance” (measured arbitrarily) from one curve to another “indicates” (without measuring) the increase in utility. But this impossibility of measurement does not affect any economic problem. Neither does economics need to know the marginal (rate of) utility of a commodity. What is needed is a representation of the *ratio* of one marginal utility to another. In fact, this ratio is precisely represented by the *slope* at any point of the utility-curve.

Thus the sole mathematical datum is summed up in the fact that the ratio of the marginal utility of x to that of z at the point (x, z) is equal to the ratio of the abscissa on z of the tangent to the utility-curve through (x, z) to its abscissa on x .

Moreover, just as we can indicate (without measuring) the total utility (say) at P_2 by the distance from the origin of the curve through P_2 , and thus exhibit the fact that at P_2 the utility is intermediate between that at P_1 and that at P_3 ; so we can *indicate* the different kinds of *Surplus* Utility. A surplus utility, in general, means the excess of the actual utility over what might

have been obtained if the individual, under the same objective conditions, had freely chosen to act in some uneconomic way.

What it *usually* means more particularly seems to be as follows: Having a given amount of money to expend on various commodities, and the prices of these commodities being such as they are, the consumer is supposed to maximise his utility by spending his money on certain quantities of each of these commodities. If therefore, at the given prices, he were to spend *all* his money on all *but one* of those commodities in the most useful way, he would procure *less* utility than if he included this one. The difference of utility, procured by these two courses of conduct is the (integral) surplus utility actually derived from the commodity singled out. The general problem of maximising utility is applicable just because there is this surplus.

In the diagram (see Fig. 4) the surplus utility (say) at P_2 , due to the inclusion of x in his purchases, is indicated by the "distance" between the utility-curve through P_2 and the utility-curve drawn through t' (where $x=0$ for the same money expenditure). The convexly descending shape of the utility-curves shows that the utility at t' is less than that at P_2 . And the *degree* of this surplus is indicated by some line drawn from the curve through t' to the curve through P_2 . To indicate this differential utility, it would be theoretically most convenient to draw (from the origin) a line through points, on the successive curves, where the tangents are throughout parallel to one another. But the sections—between

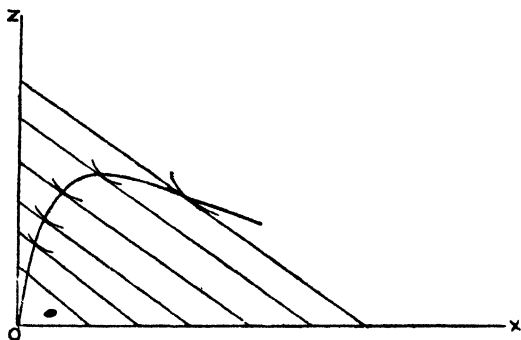


FIG. 5.

any two curves—of the *different* lines (corresponding to the different directions of the systems of parallel tangents) would not necessarily be proportional to one another.

Before entering upon the analytical discussion of Part II., we may examine Figs. 5 and 6, which illustrate the purport of this section. In these figures, small bits of the successive con-

stant utility-curves are drawn where they touch the varying price-lines. In Fig. 5 the demand-curve is exhibited which depends on varying expenditure, with the prices of x , and of z constant. In Fig. 6 the demand-curve is exhibited which depends on variation in the price of z alone. In both figures the increasing power of purchase (and, hence, the increase of utility) involves

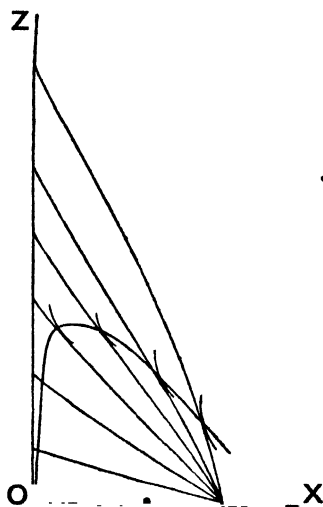


FIG. 6.

at first an increase both of x and of z , and afterwards an increase of x with a decrease of z . In this way, the solution of the two chief problems above mentioned is shown to the eye.

PART II.

In this Part, we shall confine ourselves, in order to be able to use diagrammatic representation, to the cases in which the consumer's utility (u) is a function of *two* quantities only, x and z .

We shall assume two characteristics of this function, and shall shew in § 9 that, of these two characteristics, the first proves the curve to be *descending to the right*, the second proves it to be *convex* to the two axes.

§ 5. The first assumption is that any increment of x or of z increases u .

i.e. $\frac{du}{dx}$ and $\frac{du}{dz}$ are both positive. (1)

Before coming to the second assumption some new symbols must be introduced. The standard case is that in which an increase of any factor causes a decrease in its marginal utility.

Hence, as a rule, $\frac{d^2u}{dx^2}$ and $\frac{d^2u}{dz^2}$ are both *negative*.

It would, therefore, be convenient to use the following symbols for measuring the *relative* changes in $\frac{du}{dx}$ or $\frac{du}{dz}$ due to changes in x or z :—

$$\text{Change in } \frac{du}{dx}, \text{ due to } dx \equiv \tau_{11} = -\frac{d^2u}{dx^2} \div \left(\frac{du}{dx} \cdot \frac{du}{dx} \right).$$

$$\text{Change in } \frac{du}{dz}, \text{ due to } dz \equiv \tau_{22} = -\frac{d^2u}{dz^2} \div \left(\frac{du}{dz} \cdot \frac{du}{dz} \right).$$

$$\text{Change in } \frac{du}{dz}, \text{ due to } dx \equiv \tau_{12} = -\frac{d^2u}{dx dz} \div \left(\frac{du}{dz} \cdot \frac{du}{dx} \right).$$

$$\text{Change in } \frac{du}{dx}, \text{ due to } dz \equiv \tau_{21} = -\frac{d^2u}{dz dx} \div \left(\frac{du}{dx} \cdot \frac{du}{dz} \right).$$

Again, in the standard case, a change in the amount of x would produce a greater relative change in the marginal utility of x than in that of z ; and a change in z would produce a greater relative change in the marginal utility of z than in that of x . That is, usually,

$$\tau_{11} > \tau_{12} \text{ and } \tau_{22} > \tau_{21}.$$

However, these standard relations do not hold universally. It may be that a change in z , as well as a change in x , produces a greater relative change in the marginal utility of x than in that of z .

That is, it may be that $\tau_{21} > \tau_{22}$ as well as $\tau_{11} > \tau_{12}$.

This leads up to the second postulate. Whatever relations there may be otherwise, we shall lay down the following restrictive assumption :—

Although a change in z as well as a change in x may produce a greater relative change in the marginal utility of x than in the marginal utility of z , yet such excess as is due to a change in x (measured relatively to the marginal utility of x) will invariably be greater than such excess as is due to a change in z (measured relatively to the marginal utility of z).

This assumption, expressed analytically, is that

$$\tau_{11} - \tau_{12} > \tau_{21} - \tau_{22}$$

i.e.

$$\tau_{11} + \tau_{22} - 2\tau_{12} \text{ is positive} \quad . \quad . \quad . \quad (2)$$

§ 6. In dealing with two variables, it is convenient to make the following substitutions :—

$$V \equiv \frac{du}{dx} \div \frac{du}{dz}; \quad W \equiv \frac{du}{dz} \div \frac{du}{dx},$$

so that $V.W = 1$

Hence, when $\frac{d^2u}{dx^2}$ lies between $W\frac{d^2u}{dx^2}$ and $V\frac{d^2u}{dz^2}$, we may say that x and z are *competitive*.

But, when $\frac{d^2u}{dx^2}$ is greater than both $W\frac{d^2u}{dx^2}$ and $V\frac{d^2u}{dz^2}$, then we may say that x and z are *complementary*.

In the former case, either $\frac{dV}{dx}$ or $\frac{dW}{dz}$ is *positive*, in the latter case $\frac{dV}{dx}$ and $\frac{dW}{dz}$ are both *negative*.

In the former case changes along the Demand Curves involve an opposite variation in x and z ; in the latter the two increase or decrease, together.

§ 9. We may now show how the curves constructed on these considerations will behave.

In the constant utility curve, $u=c$, we have

$$\begin{aligned} \frac{du}{dx} + \left(\frac{dz}{dx}\right)_u \cdot \frac{du}{dz} &= 0, \\ \text{i.e.,} \quad -\left(\frac{dz}{dx}\right)_u &= \frac{du}{dx} \div \frac{du}{dz} \equiv V. \end{aligned}$$

Thus V measures the inclination to the axis of x of the tangent to the constant-utility curve at any point.

Since, in accordance with our first assumption, $\frac{du}{dx}$ and $\frac{du}{dz}$ are both positive,

$\therefore \left(\frac{dz}{dx}\right)_u$ is *negative*; i.e., the curves fall to the right.

Again,

$$-\left(\frac{d^2z}{dx^2}\right)_u = \frac{dV}{dx} + \left(\frac{dz}{dx}\right)_u \cdot \frac{dV}{dz} = \frac{dV}{dx} - V\frac{dV}{dz}.$$

Since, in accordance with our second assumption, this last expression is *negative*,

$\therefore \left(\frac{d^2z}{dx^2}\right)_u$ is *positive*; i.e., the curve is throughout *convex*.

It follows that any straight line (between the axes) can touch only *one* utility curve, and only at *one* point; and that at this point the utility will be a *maximum*. [See Figs. 4, 5, 6.] The results of this section resolve the first problem of § 4.

§ 10. The condition of convexity may be written:—

$$\frac{du}{dz} \cdot \frac{dV}{dx} < \frac{du}{dx} \cdot \frac{dV}{dz} \quad \dots \dots \dots (3)$$

or

$$\frac{du}{dx} \cdot \frac{dW}{dz} < \frac{du}{dz} \cdot \frac{dW}{dx} \quad \dots \dots \dots (4)$$

In the *mediate* section, $\frac{dW}{dz}$ and $\frac{dV}{dx}$ are both negative, and thus $\frac{dV}{dz}$ and $\frac{dW}{dx}$ are both positive, so that the above relations are obviously satisfied.

But in the *z-urgent* section, $\frac{dW}{dz}$ (and $\frac{dW}{dx}$) are positive, and thus $\frac{dV}{dz}$ (and $\frac{dV}{dx}$) are negative. Hence in this case, from (3),

$$\frac{du}{dz} \cdot \left(-\frac{dV}{dz}\right) < \frac{du}{dz} \cdot \left(-\frac{dV}{dx}\right),$$

$$\frac{du}{dz} \div \frac{du}{dz} < \frac{dV}{dx} \div \frac{dV}{dz} \dots \dots \dots (5)$$

i.e.,

also

$$\frac{du}{dx} \div \frac{du}{dz} < \frac{dW}{dx} \div \frac{dW}{dz} \dots \dots \dots (6)$$

But in the *x-urgent* section, $\frac{dV}{dx}$ (and $\frac{dV}{dz}$) are positive, and thus $\frac{dW}{dx}$ (and $\frac{dW}{dz}$) are negative. Hence, in this case, from (4),

$$\frac{du}{dz} \cdot \left(-\frac{dW}{dx}\right) < \frac{du}{dx} \cdot \left(-\frac{dW}{dz}\right),$$

$$\frac{dW}{dx} \div \frac{dW}{dz} < \frac{du}{dx} \div \frac{du}{dz} \dots \dots \dots (7)$$

i.e.,

also

$$\frac{dV}{dx} \div \frac{dV}{dz} < \frac{du}{dx} \div \frac{du}{dz} \dots \dots \dots (8)$$

Thus the relations expressed in (7) and (8) for the *x-urgent* section are the reverse of those expressed in (5) and (6) for the *z-urgent* section.

§ 11. The distinctions between the three sections may usefully be indicated by constructing adjacent utility-curves. [See Figs. 8 (a), (b), (c).]

ADJACENT UTILITY CURVES.

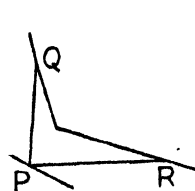


FIG. 8 (a).

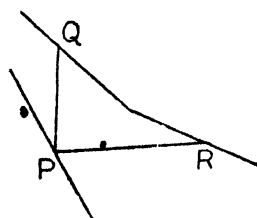


FIG. 8 (b).

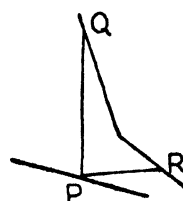


FIG. 8 (c).

MEDIATE SECTION Z-URGENT SECTION

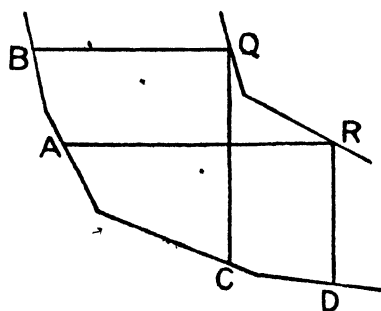
X-URGENT SECTION

Let Q and R be two points on a utility curve; and P a point on an adjacent curve of lower utility, where the ordinates at Q and R meet.

Draw tangents to the utility curves at P , Q and R . The slope at P may be related in one of three ways to those at Q and R .

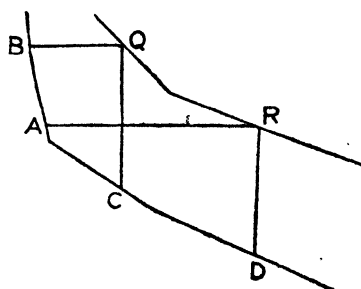
In the *mediate* case, the slope at P is intermediate between those at Q and at R .

i.e. $\frac{dV}{dx} < 0$ and $\frac{dW}{dz} < 0$.



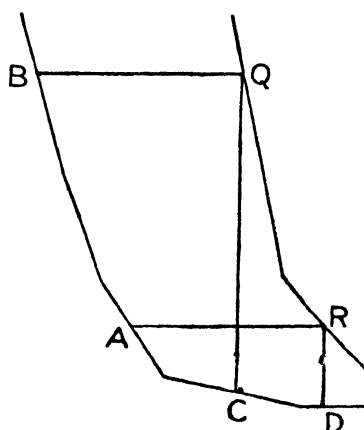
MEDIATE CASE

FIG. 9 (a).



Z-URGENT CASE

FIG. 9 (b).



X-URGENT CASE

FIG. 9 (c).

In the *z-urgent* case, the slope at *P* is steeper both than that at *Q* and that at *R*.

$$\text{i.e.} \quad \frac{dV}{dx} < 0 \quad \text{but} \quad \frac{dW}{dz} > 0.$$

In the *x-urgent* case, the slope at *P* is flatter both than that at *Q* and that at *R*.

$$\text{i.e.} \quad \frac{dV}{dx} > 0 \quad \text{while} \quad \frac{dW}{dz} < 0.$$

Since the slope at *Q* is always steeper than that at *R*, the three figures represent all possible cases.

§ 12. The shapes of the curves may be still more fully shown by Figs. 9 *a*, *b*, *c* for any two utility curves not necessarily adjacent.

We draw horizontal and vertical lines between any two curves.

In the mediate case, $BQ < AR$ and $RD < CQ$,
i.e., the *x*-distances *decrease* as *z* increases,
and the *z*-distances *decrease* as *x* increases.

In the *z-urgent* case, $BQ < AR$ but $RD > CQ$,
i.e., the *x*-distances again *decrease* as *z* increases;
but the *z*-distances *increase* as *x* increases.

In the *x-urgent* case, $BQ > AR$ while $RD < CQ$,
i.e., the *x*-distances here *increase* as *z* increases;
while the *z*-distances *decrease* as *x* increases.

N.B.—If the ratio of the marginal utility of *z* to that of *x* varied only with variation of *x*, so that $W = f(x)$, and $\frac{dW}{dz} = 0$; then, the vertical distances would be constant, or the utility curves would be parallel at the same value of *x*. This is the diagrammatic equivalent of the constancy ascribed to the marginal utility of *money* (*z* standing here for *money*).

PART III.

MONEY AND PRICES.

§ 13. Let μ be the amount of money spent on two factors *x* and *z*, whose prices are ξ and ζ respectively. Then

$$x\xi + z\zeta = \mu, \quad \text{i.e.} \quad \frac{x}{\mu/\xi} + \frac{z}{\mu/\zeta} = 1.$$

This straight line may be called the Price-Line.

Its intercept on the axis of *x* is μ/ξ : its intercept on the axis

of z is μ/ζ . The former increases as ξ decreases, the latter as ζ decreases— μ being constant.

The maximum utility is where the price-line touches a utility curve; the inclination of the tangent at any point of the utility curve is given by the ratio of $\frac{du}{dx}$ to $\frac{du}{dz}$; and the inclination of the price-line is given by the ratio of ξ to ζ .

We, therefore, may construct the following three curves of Demand :—

$$(1) \quad \frac{du}{dx} \div \frac{du}{dz} = \frac{\xi}{\zeta} \quad \text{or} \quad \frac{du}{dz} \div \frac{du}{dx} = \frac{\zeta}{\xi}.$$

$$(2) \quad \frac{du}{dx} \div \frac{du}{dz} = \frac{\mu/\zeta - z}{x}.$$

$$(3) \quad \frac{du}{dz} \div \frac{du}{dx} = \frac{\mu/\xi - x}{z}.$$

The first curve is to be used, when ξ and ζ are constant, and μ varies. In this case, the price-lines are a series of parallels determined by the ratio ξ to ζ (see Fig. 5).

The second curve is to be used, when μ and ζ are constant, and ξ varies. In this case, the price-lines are a series of lines through the fixed point $x=0, z=\mu/\zeta$.

The third curve is to be used, when μ and ξ are constant, and ζ varies. In this case, the price-lines are a series of lines through the fixed point $z=0, x=\mu/\xi$ (see Fig. 6).

The curves (1), (2), (3) may be briefly written in accordance with our former notation :—

$$(1) \quad V = \xi/\zeta \quad \text{or} \quad W = \zeta/\xi.$$

$$(2) \quad Vx + z = \mu/\zeta.$$

$$(3) \quad Wz + x = \mu/\xi.$$

We shall begin by considering curve (1), where $V (= \xi/\zeta)$ is constant. This discussion is given in §§ 14, 15, 16, 17. Afterwards we shall deduce the characteristics of curves (2) and (3), and compare the results obtained with those for curve (1). This discussion occupies §§ 18, 19, 20.

§ 14. Whereas in the u -constant curve we have

$$-\left(\frac{dz}{dx}\right)_u = \frac{du}{dx} \div \frac{du}{dz} \equiv V,$$

we have in the V -constant curve

$$-\left(\frac{dz}{dx}\right) = \frac{dV}{dx} \div \frac{dV}{dz}.$$

Now, by the condition of convexity,

$$\frac{du}{dz} \cdot \frac{dV}{dx} < \frac{du}{dx} \cdot \frac{dV}{dz}.$$

In the mediate case, where $\frac{dV}{dx}$ is negative and $\frac{dV}{dz}$ is positive, we see that $\left(\frac{dz}{dx}\right)_{\xi, \zeta}$ is positive; i.e. along the ξ/ζ -constant curve, z and x increase together.

In the z -urgency case, where $\frac{dV}{dx}$ and $\frac{dV}{dz}$ are both negative, or in the x -urgency case, where $\frac{dV}{dx}$ and $\frac{dV}{dz}$ are both positive, $\left(\frac{dz}{dx}\right)_{\xi, \zeta}$ is negative, i.e. in both cases, x and z vary oppositely.

Now, we have previously shown that, where z is urgent, $\frac{dV}{dx} \div \frac{dV}{dz} > \frac{du}{dx} \div \frac{du}{dz}$ i.e., the V -constant curve is steeper than the u -constant curve, at any point where z is urgent.

On the other hand, where x is urgent, $\frac{dV}{dx} \div \frac{dV}{dz} < \frac{du}{dx} \div \frac{du}{dz}$; i.e., the V -constant curve is flatter than the u -constant curve at any point where x is urgent (see Fig. 5).

§ 15. We will now show how the urgency of z or of x determines the corresponding course of the V -constant curve.

We have
$$\frac{du}{dx} Dx + \frac{du}{dz} Dz \equiv Du,$$

i.e.,
$$\frac{du}{dx} \cdot \frac{Dx}{Du} + \frac{du}{dz} \cdot \frac{Dz}{Du} \equiv 1 \quad \dots \dots \dots (a)$$

where $\frac{Dx}{Du}$ and $\frac{Dz}{Du}$ are total differential coefficients, derived from any relation in which x and z are determined as functions of u .

Now, along the V -constant curve, we have

$$\frac{dV}{dx} Dx + \frac{dV}{dz} Dz = 0.$$

Thus, this curve combined with $u \equiv f(x, z)$, determines x as a function of u , and z as a function of u , such that

$$\frac{dV}{dx} \cdot \frac{Dx}{Du} + \frac{dV}{dz} \cdot \frac{Dz}{Du} = 0 \quad \dots \dots \dots (\beta)$$

Equations (a) and (β) determine the values of $\frac{Dx}{Du}$ and $\frac{Dz}{Du}$.

Thus

$$\left(\frac{du}{dx} \cdot \frac{dV}{dz} - \frac{du}{dz} \cdot \frac{dV}{dx}\right) \frac{Dx}{Du} = \frac{dV}{dz} \dots \dots (\gamma)$$

$$\left(\frac{du}{dz} \cdot \frac{dV}{dx} - \frac{du}{dx} \cdot \frac{dV}{dz}\right) \frac{Dz}{Du} = \frac{dV}{dx} \dots \dots (\delta)$$

Here the coefficient of $\frac{Dx}{Du}$ is positive, and that of $\frac{Dz}{Du}$ is negative.

Hence,

$$\frac{Dx}{Du} \text{ has the sign of } \frac{dV}{dz},$$

and

$$\frac{Dz}{Du} \text{ has the sign of } -\frac{dV}{dx}.$$

Now, in the *mediate* case, $\frac{dV}{dz}$ and $-\frac{dV}{dx}$ are both *positive*; hence, here, both x and z increase with increase of utility.

In the *z-urgent* case, $\frac{dV}{dz}$ and $\frac{dV}{dx}$ are both *negative*; hence, here, x decreases and z increases with increase of utility.

In the *x-urgent* case, $\frac{dV}{dz}$ and $\frac{dV}{dx}$ are both *positive*; hence, here, x increases and z decreases with increase of utility. The results of this section solve the second of the principal problems (mentioned in § 4), for the case in which the changes in the price-line are due to changes in amount of money expended.

§ 16. The above results may be shown diagrammatically.

A glance at the curves [see Figs. 9 (a), (b), (c)] of varying convexities, corresponding to the three cases—mediate, *z-urgent*, *x-urgent*—will shew the course of the V -constant curve.

In the *mediate* case, the point in the curve $BACD$ where the tangent is parallel to Q will be to the left of C , and the point where the tangent is parallel to R will be below A .

Hence, the course of the V -curve from $BACD$ to QR will be upwards and rightwards: *i.e.*, an increase of utility will involve an increase both of x and of z .

In the *z-urgent* case, the point in the curve $BACD$ where the tangent is parallel to Q will be below and to the *right* of C , and the point where the tangent is parallel to R will be (far) below A .

Hence, the course of the V -curve from $BACD$ to QR will be upwards and *leftwards*: *i.e.*, an increase of utility will involve an increase (large) of z and a *decrease* of x .

In the *x-urgent* case, the point in the curve $BACD$ where the tangent is parallel to Q will be (far) to the left of C , and the

point where the tangent is parallel to R will be *above* and to the left of A .

Hence, the course of the V -curve from $BACD$ to QR will be *downwards* and *rightwards*; i.e., an increase of utility will involve an increase (large) of x and a *decrease* of z .

It is also useful to note that the V -curve rises more *sharply* than the u -curves where they meet, in the z -urgent case, and less *sharply* in the x -urgent case. [See § 14.] In other words, where the u -curves cut a V -curve, the V -curve is more nearly parallel to the axis of Z when z is urgent, and more nearly parallel to the axis of X when x is urgent.

§ 17. We may repeat the explanation that the V -constant curve is to be regarded as the curve of demand for x and z jointly, when the prices on x and z are fixed, and the amount of money expended on x and z together is allowed to vary.

The amount of money (μ) purchases the utility (u), and thus we may speak of the price (say π) of a unit of utility. We may, therefore, write

$$x\xi + z\zeta = \mu \equiv \pi u.$$

Let us introduce the symbol ϵ as a variable depending on the nature of the function $u = f(x, y)$, such that

$$x \frac{du}{dx} + z \frac{du}{dz} \equiv \epsilon u.$$

Then, $\frac{\xi}{\frac{du}{dx}} = \frac{\zeta}{\frac{du}{dz}} = \kappa$ (say) along the V -constant curve

$$\therefore \mu \equiv \pi u = \kappa \epsilon u.$$

Now, along the V -constant curve,

$$\frac{du}{dx} Dx + \frac{du}{dz} Dz = Du,$$

and

$$\xi Dx + \zeta Dz = D\mu;$$

$$\therefore \frac{D\mu}{Du} = \kappa.$$

i.e., $\frac{1}{\kappa}$ measures the marginal utility of money.

And

$$\epsilon = \frac{\mu}{u} \frac{1}{\kappa} = \frac{\mu Du}{u D\mu}.$$

[N.B.—Expressions of the form $\frac{z dx}{x dz}$ are of very frequent occurrence in the analytical treatment of economics (and other sciences). This form of expression corresponds to the general notion of elasticity. When x and z are such as to increase or

decrease together, and are both positive, so that $\frac{zdx}{xdz}$ is positive, the important variation in its value is according as it is greater, equal, or less than unity. It can easily be shewn that these three cases correspond, respectively, to the three cases according as $\frac{x}{z}$ increases, remains constant, or diminishes when x (or z) increases.]

Thus, ϵ may be regarded as measuring the elasticity of u in terms of money; i.e., the rate at which utility increases proportionally to an increase in money.

This rate gives increasing, constant, or diminishing returns of utility, for money expended, according as ϵ is greater, equal or less than unity.

The result can obviously be extended to any number of factors purchased.

§ 18. *The Demand Curve for Variations in Price of x .*

The equation here is

$$Vx + z = \mu/\zeta.$$

where μ/ζ is constant.

This gives

$$\left(x \frac{dV}{dx} + V\right) + \left(\frac{dz}{dx}\right)_{\mu, \zeta} \left(x \frac{dV}{dz} + 1\right) = 0.$$

$$-\left(\frac{dz}{dx}\right)_{\mu, \zeta} = \frac{x \frac{dV}{dx} + V}{x \frac{dV}{dz} + 1}.$$

$$\therefore \left(\frac{dV}{dx}\right)_{\mu, \zeta} \equiv \frac{dV}{dx} + \left(\frac{dz}{dx}\right)_{\mu, \zeta} \cdot \frac{dV}{dz} = \frac{\frac{dV}{dx} - V \frac{dV}{dz}}{x \frac{dV}{dz} + 1}.$$

and

$$\left(\frac{dV}{dz}\right)_{\mu, \zeta} \equiv \frac{dV}{dz} + \left(\frac{dx}{dz}\right)_{\mu, \zeta} \cdot \frac{dV}{dx} = \frac{V \frac{dV}{dz} - \frac{dV}{dx}}{x \frac{dV}{dz} + V}.$$

§ 19. We will now show how the urgency of x or of z determines the course of the μ/ζ constant curve.

We have

$$\frac{du}{dx} \cdot \frac{Dx}{Du} + \frac{du}{dz} \cdot \frac{Dz}{Du} = 1. \quad \dots \dots (a)$$

where $\frac{Dx}{Du}$ and $\frac{Dz}{Du}$ have to satisfy the equation

$$\left(x \frac{dV}{dx} + V\right) \frac{Dx}{Du} + \left(x \frac{dV}{dz} + 1\right) \frac{Dz}{Du} = 0. \quad (\beta)$$

Equations (a) and (β) determine the values of $\frac{Dx}{Du}$ and $\frac{Dz}{Du}$.

Thus
$$\left(\frac{du}{dx} \cdot \frac{dV}{dz} - \frac{du}{dz} \cdot \frac{dV}{dx}\right) \frac{Dx}{Du} = \frac{dV}{dz} + \frac{1}{x} \quad (\gamma)$$

$$\left(\frac{du}{dz} \cdot \frac{dV}{dx} - \frac{du}{dx} \cdot \frac{dV}{dz}\right) \frac{Dz}{Du} = \frac{dV}{dx} + \frac{V}{x} \quad (\delta)$$

Here the coefficient of $\frac{Dx}{Du}$ is positive, and that of $\frac{Dz}{Du}$ is negative.

Thus $\frac{Dx}{Du}$ is positive or negative, according as $\frac{dV}{dz} >$ or $< -\frac{1}{x}$, and $\frac{Dz}{Du}$ is positive or negative, according as $\frac{dV}{dx} <$ or $> -\frac{V}{x}$.

In this way we learn where the curve moves upwards or downwards, rightwards or leftwards.

It should be noticed that, by aid of the formulae in § 18, the relations (γ) and (δ) may be shortly written

$$\frac{Du}{Dx} = -x \frac{du}{dz} \cdot \left(\frac{dV}{dx}\right)_{\mu, \zeta} \quad \text{and} \quad \frac{Du}{Dz} = -x \frac{du}{dz} \cdot \left(\frac{dV}{dz}\right)_{\mu, \zeta}.$$

§ 20. We may compare the results of § 19 with those of § 15; and thus discover the relations between the course of the μ/ζ -constant curve and the ξ/ζ -constant curve.

In the latter, Dx becomes negative when $\frac{dV}{dz}$ is negative, but in the former, Dx becomes negative only when $\frac{dV}{dz} < -\frac{1}{x}$. That is, a higher degree of relative urgency of x is required to lead to a diminution in the amount of x demanded, where merely the price of x falls, than when merely the joint expenditure on x and z increases. Thus, when $\frac{dV}{dz}$ lies between 0 and $-1/x$, the ξ/ζ -constant curve is moving *leftwards*, but the μ/ζ -curve still moves *rightwards*. When $\frac{dV}{dz} < -\frac{1}{x}$, both curves are moving leftwards, and when $\frac{dV}{dz} > 0$, both curves are moving rightwards.

Again, in the ξ/ζ -constant curve, Dz becomes negative only when $\frac{dV}{dx}$ is positive, but in the μ/ζ -constant curve, Dz is negative

as soon as $\frac{dV}{dx} > -\frac{V}{x}$. That is, a lower degree of relative urgency of x is required to lead to a diminution in the amount of z demanded, when merely the price of x falls, than when merely the joint expenditure on x and z increases. Thus, when $\frac{dV}{dx}$ lies between 0 and $-\frac{V}{x}$, the ξ/ζ -constant curve is moving upwards, but the μ/ζ -constant curve is moving downwards. When $\frac{dV}{dx} > 0$, both curves are moving downwards, and when $\frac{dV}{dx} < -\frac{V}{x}$ both curves are moving upwards.

For instance, starting from $x=0$, in the curve $Vx+z=\mu/\zeta$, we have $z=\mu/\zeta$. This is obviously an absolute maximum for z , since V and x are positive. As V diminishes along this curve, correspondingly to the cheapening of x , the curve becomes finally asymptotic to the horizontal line $z=\mu/\zeta$. But it must begin by falling from its initial maximum height $z=\mu/\zeta$. In other words, when x is very small, and z very large, the demand for x must be very urgent relatively to that for z . Hence x begins by increasing at the expense of a rapid fall in z . If, however, the absolute need for x is soon gratified, and the need for z begins to be more felt, then z may reach its first minimum value when x is still small, after which x and z will continue to rise together. When x and z are rising together, $\frac{du}{dx}$ and $\frac{du}{dz}$ may both be presumed to be diminishing. But if, owing to a relative superabundance of x , $\frac{du}{dx}$ rapidly diminishes while $\frac{du}{dz}$ is only slowly diminishing, V would diminish very rapidly if x continued to increase. A gradual diminution of V might therefore be effected by decreasing x (and thus increasing $\frac{du}{dx}$).

PART IV.

§ 21. To find the maximum product obtained at a given expense (μ), when the prices of the factors are given.

Let $p \equiv f(a, b, c \dots)$ (n -factors)

where

$$aa + b\beta + c\gamma + \dots = \mu,$$

$$Dp=0 \text{ gives } \frac{df}{da}Da + \frac{df}{db}Db + \frac{df}{dc}Dc + \dots = 0,$$

$$D\mu=0 \text{ gives } aDa + \beta Db + \gamma Dc + \dots = 0.$$

This gives

$$\left(\kappa \frac{df}{da} - a\right)Da + \left(\kappa \frac{df}{db} - \beta\right)Db + \dots = 0,$$

for arbitrary increments Da, Db, \dots

Hence κ is determined by the n -equations,

$$\frac{a}{df/da} = \frac{\beta}{df/db} = \dots = \kappa.$$

These n -equations, together with

$$a\alpha + b\beta + \dots = \mu,$$

determine the $(n+1)$ quantities κ, a, b, c, \dots

§ 22. Let f be such that

$$a \frac{dp}{da} + b \frac{dp}{db} + c \frac{dp}{dc} + \dots = \epsilon p.$$

where, in general, ϵ is a variable function of a, b, c, \dots , and may be called the *elasticity of production*.

Then, from above,

$$\mu = a\alpha + b\beta + c\gamma + \dots = \epsilon \kappa p$$

$$\therefore \kappa = \frac{\mu}{\epsilon p}.$$

Or, if π = cost of unit of p , so that $\mu \equiv \pi p, \kappa = \frac{\pi}{\epsilon}$.

Thus $\kappa \begin{matrix} > \\ < \end{matrix} \pi$, according as $\epsilon \begin{matrix} < \\ > \end{matrix} 1$.

§ 23. Now the price of an agent varies with his own "marginal efficiency" combined with his contribution to the general efficiency. Thus

$$\begin{aligned} a &= \frac{d\mu}{da} = \frac{d(\pi p)}{da} = \pi \frac{dp}{da} + p \frac{d\pi}{da} \\ &= \frac{\pi}{\kappa} a + p \frac{d\pi}{da} = \epsilon a + p \frac{d\pi}{da}, \\ \therefore a(1-\epsilon) &= p \frac{d\pi}{da}. \end{aligned}$$

Thus we have two sets of equivalent equations

$$\begin{aligned} \frac{a}{dp/da} &= \frac{\beta}{dp/db} = \dots = \frac{\pi}{\epsilon} \equiv \frac{\mu}{\epsilon p}, \\ \frac{a}{d\pi/da} &= \frac{\beta}{d\pi/db} = \dots = \frac{p}{1-\epsilon} \equiv \frac{\mu}{(1-\epsilon)\pi}. \end{aligned}$$

§ 24. Eliminating a, b, c, \dots and k , the above give μ as a function of p , say $\mu = \chi(p)$.

Along this curve

$$Dp = \frac{df}{da} Da + \frac{df}{db} Db + \frac{df}{dc} Dc + \dots$$

$$D\mu = \alpha Da + \beta Db + \gamma Dc \dots$$

$$\therefore \frac{D\mu}{Dp} \equiv \kappa = \frac{\mu}{\epsilon p},$$

$$\therefore \epsilon = \frac{\mu Dp}{p D\mu}.$$

Hence $\epsilon > 1$, according as the expense of producing p involves what may be called increasing, constant, or diminishing efficiency of money; or according as

$$\alpha \frac{dp}{da} + \beta \frac{dp}{db} + \gamma \frac{dp}{dc} + \dots = p$$

at the values of $a, b, c \dots$ for which the maximum production is determined.

§ 25. We must consider the general condition that the values obtained for $a, b, c \dots$ will give a true maximum—rather than a stationary or minimum value—for p . This will depend on the sign of the second differential of p ; that is, upon

$$\frac{d^2p}{da^2} Da^2 + 2 \frac{d^2p}{da db} Da Db + \dots$$

where, since $\alpha \cdot Da + \beta \cdot Db + \dots = 0$,

and α, β , &c., are proportional to $\frac{df}{da}, \frac{df}{db}$, &c.,

we must have accurately (*i.e.*, not merely to the first approximation) $\frac{dp}{da} Da + \frac{dp}{db} Db + \dots = 0$.

We make the following abbreviations:

$$\frac{dp}{da} Da = x_1, \quad \frac{dp}{db} Db = x_2, \quad \&c.,$$

$$-\frac{d^2p}{da^2} \div \left(\frac{dp}{da}\right)^2 = \tau_{11}, \quad -\frac{d^2p}{da db} \div \left(\frac{dp}{da} \cdot \frac{dp}{db}\right) = \tau_{12}, \quad \&c.$$

Then the required condition is that

$$\tau_{11} x_1^2 + 2\tau_{12} x_1 x_2 + \dots \text{ should be positive,}$$

where

$$x_1 + x_2 + \dots = 0.$$

Substituting $x_1 = -(x_2 + x_3 + \dots)$ in the quadratic, we obtain the quadratic in x_2, x_3 , &c., of which the typical terms are $x_2^2(\tau_{11} + \tau_{22} - 2\tau_{12}) + 2x_2 x_3(\tau_{11} + \tau_{23} - \tau_{12} - \tau_{13})$.

The discriminant so obtained can be shown to be that of which the successive minors are

$$\begin{vmatrix} 0 & 1 \\ -1 & \tau_{11} \end{vmatrix}, \begin{vmatrix} 0 & 1 & 1 \\ -1 & \tau_{11} & \tau_{12} \\ -1 & \tau_{12} & \tau_{22} \end{vmatrix}, \text{ \&c.}$$

all of which must be *positive*. [N.B.—The *first* is identically positive.] Thus, there are $(n-1)$ conditions of sign, where n is the number of independent variables.

These conditions are equivalent to the statement that the "surfaces" $p \equiv f(a, b, c \dots)$ are in all directions *convex* to the co-ordinate axes. But there are several ways of indicating the economic significance of the result.

§ 26. We will begin by a consideration of the nature of the curve $\mu = \chi(p)$, which is analogous to a line of force cutting across the equipotential surfaces $p \equiv f(a, b, c \dots)$.

It is instructive to determine how much each of the factors $a, b, c \dots$ is increased or decreased when the expenditure μ is increased. That is, we must determine the values of the differentials $\frac{Da}{D\mu}, \frac{Db}{D\mu}, \text{ \&c.}$, when μ and therefore p are increased.

We shall replace $Da, Db \dots$ in the above by $\frac{Da}{Dp}, \frac{Db}{Dp} \dots$ and adopt the same abbreviations, where now we have

$$\frac{dp}{da} Da + \frac{dp}{db} Db + \dots = Dp,$$

thus $x_1 + x_2 + \dots = 1,$

and $\frac{a}{dp/da} = \frac{\beta}{dp/db} = \dots = \kappa = \frac{D\mu}{Dp}.$

Then, taking the total differential of the logarithm of these equations, we have

$$\log \kappa + \log \frac{dp}{da} = \log a, \text{ \&c.},$$

$$\therefore -\frac{1}{\kappa} \frac{D\kappa}{Dp} = \left(\frac{d^2p}{da^2} + \frac{dp}{da} \right) \frac{Da}{Dp} + \left(\frac{d^2p}{da db} + \frac{dp}{da} \right) \frac{Db}{Dp} + \dots$$

Writing $\frac{1}{\kappa} \frac{D\kappa}{Dp} = K$, the system of equations for x_1, x_2 , and K become

$$\begin{aligned} 0 + x_1 + x_2 + x_3 + \dots &= 1, \\ -K + \tau_{11}x_1 + \tau_{12}x_2 + \tau_{13}x_3 + \dots &= 0, \\ -K + \tau_{12}x_1 + \tau_{22}x_2 + \tau_{23}x_3 + \dots &= 0, \\ -K + \tau_{13}x_1 + \tau_{23}x_2 + \tau_{33}x_3 + \dots &= 0. \end{aligned}$$

The determinant here is that which has been shown to be (with its several minors) necessarily *positive*.

It may be written $|0123 \dots|$, corresponding to the unbordered determinant $|123 \dots|$.

Thus K is given by the equation

$$K \times |0123 \dots| = |123 \dots|.$$

or rather, we must indicate the several values of K by subscripts according to the factors that are to vary. Thus

$$K_1 \times \begin{vmatrix} 0 & 1 \\ -1 & \tau_{11} \end{vmatrix} = \tau_{11}, \text{ i.e., } K_1 = \tau_{11};$$

$$K_{12} \times \begin{vmatrix} 0 & 1 & 1 \\ -1 & \tau_{11} & \tau_{12} \\ -1 & \tau_{12} & \tau_{22} \end{vmatrix} = \begin{vmatrix} \tau_{11} & \tau_{12} \\ \tau_{12} & \tau_{22} \end{vmatrix}, \text{ \&c.}$$

The following relations can be proved,

$$K_1 - K_{12} = x_2^2 \cdot \frac{|012|}{|01|};$$

$$K_{12} - K_{123} = x_3^2 \cdot \frac{|0123|}{|012|};$$

$$K_{123} - K_{1234} = x_4^2 \cdot \frac{|01234|}{|0123|}, \text{ \&c.}$$

where $x_2, x_3, x_4 \dots$ are the values of the last terms in the several solutions, for 2, 3, 4 \dots variables.

Thus, it easily follows that the conditions for a *true* maximum are equivalent to the series of inequations—

$$K_1 > K_{12} > K_{123} > K_{1234}, \text{ \&c.}$$

Now
$$K = \frac{1}{\kappa} \frac{D\kappa}{Dp} = \frac{D}{D\mu} \left(1 \div \frac{Dp}{D\mu} \right).$$

Thus K measures the rate at which the inverse of the “marginal efficiency” of money changes. K is not necessarily positive. But the above inequations are equivalent to the economic statement that “any increase of money tends less and less to diminish its ‘marginal efficiency’ as the variety of factors upon which it is expended increases.”

§ 27. Another elementary account can be given of the significance of the various K values.

Returning to the second total differential, we have the quadratic expression, where $\Sigma x = 0$,

$$\tau_{11}x_1^2 + 2\tau_{12}x_1x_2 + \dots$$

Let the various values of x be equated to $x - \xi$. Then

$$\begin{aligned} \tau_{11}x_1^2 + 2\tau_{12}x_1x_2 + \dots &\equiv \tau_{11}\bar{x}_1^2 + 2\tau_{12}\bar{x}_1\bar{x}_2 + \dots \\ &+ \tau_{11}\xi_1^2 + 2\tau_{12}\xi_1\xi_2 + \dots \\ &- 2\xi_1(\tau_{11}\bar{x}_1 + \tau_{12}\bar{x}_2 + \dots) \\ &- 2\xi_2(\tau_{12}\bar{x}_1 + \tau_{22}\bar{x}_2 + \dots) \end{aligned}$$

Here \bar{x}_1, \bar{x}_2 , &c., may be chosen arbitrarily, when x_1, x_2, \dots have any given values.

Let us choose them to satisfy the equations

$$\begin{aligned}\bar{x}_1 + \bar{x}_2 + \dots &= \Sigma \xi, \\ \tau_{11}\bar{x}_1 + \tau_{12}\bar{x}_2 + \dots &= K \cdot \Sigma \xi, \\ \tau_{12}\bar{x}_1 + \tau_{22}\bar{x}_2 + \dots &= K \cdot \Sigma \xi.\end{aligned}$$

Then, since $0 = \Sigma x = \Sigma \bar{x} - \Sigma \xi$, $\therefore \Sigma \bar{x} = \Sigma \xi$. Thus K must have the value $K_{123} \dots$ (obtained before). Multiplying successively by $\bar{x}_1, \bar{x}_2, \dots$ and adding, we have

$$\tau_{11}\bar{x}_1^2 + 2\tau_{12}\bar{x}_1\bar{x}_2 + \dots = K \cdot \Sigma \xi \cdot \Sigma \bar{x} = K \cdot (\Sigma \xi)^2.$$

Thus

$$\begin{aligned}\tau_{11}x_1^2 + 2\tau_{12}x_1x_2 + \dots &= \\ \tau_{11}\xi_1^2 + 2\tau_{12}\xi_1\xi_2 + \dots - K(\xi_1 + \xi_2 + \dots)^2 &= \\ = (\tau_{11} - K)\xi_1^2 + 2(\tau_{12} - K)\xi_1\xi_2 + \dots\end{aligned}$$

where ξ_1, ξ_2, \dots are unrestricted. Hence another form of the condition for a true maximum is that the series of determinants obtained from $|123 \dots|$ by subtracting $K_{123} \dots$ from each constituent must be positive. [The last of these is identically zero.]

§ 28. We may give a diagrammatic representation of an important application of this result.

Let us choose (say) r of the quantities ξ_1, ξ_2 , &c., so as to satisfy

$$\left. \begin{aligned}\xi_1 + \dots + \xi_r &= 1 \\ -K_{1\dots r} + \tau_{11}\xi_1 + \dots + \tau_{1r}\xi_r &= 0 \\ -K_{1\dots r} + \tau_{12}\xi_1 + \dots + \tau_{2r}\xi_r &= 0\end{aligned} \right\} (r+1) \text{ equations,}$$

and let $\xi_{r+1}, \dots = 0$.

Then

$$\tau_{11}x_1^2 + 2\tau_{12}x_1x_2 + \dots = K_{12\dots r} - K_{12\dots n}.$$

In the diagram, we represent a tangent "plane" RQ at R to the production "surface."

Then, if P represents any previously obtained maximum position, the movement from P to Q will represent the maximisation obtained by using an extra increment of money on the factors corresponding to ξ , up to ξ_r ; whereas, the movement from P to R represents that from using the same amount of money on *all* the factors from ξ_1 to ξ_n .

The convexity of the production "surfaces" shows that the value for R is greater than that for Q ; and the above equation shows that the increment of utility along the "tangent" plane,

(where $\Sigma x = 0$) is measured by the second differential value $\tau_{11}x_1^2 + 2\tau_{12}x_1x_2 + \dots$, which must, therefore, be positive.

The difference of utility between that at R and that at Q is the incrementally measured "*surplus*": i.e., the excess value of

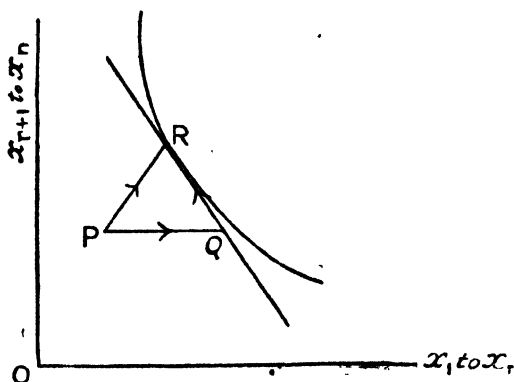


FIG. 10.

expenditure on $(\xi_{r+1} \dots \xi_n)$ over that of the same amount expended on $(\xi_1 \dots \xi_r)$.

On Some Special Forms of the Production Function.

§ 29. *Grouped Factors.*—The factors in production often fall into separate groups. In this case it is legitimate to maximise for one group at a time; and finally maximise for the whole. Or, we may have groups of groups which may be similarly treated.

The grouping of factors, here, means that the product is a function of functions of separate sets of factors.

The simplest case, for illustration, is that in which the product is a function of two functions of two factors each.

Thus, let $p \equiv f\{\psi(a, b), \chi(c, g)\}$,

Then

$$\begin{aligned} \frac{dp}{da} &= \frac{df}{d\psi} \cdot \frac{d\psi}{da}; & \frac{dp}{db} &= \frac{df}{d\psi} \cdot \frac{d\psi}{db}; \\ \frac{dp}{dc} &= \frac{df}{d\chi} \cdot \frac{d\chi}{dc}; & \frac{dp}{dg} &= \frac{df}{d\chi} \cdot \frac{d\chi}{dg}; \\ \therefore \frac{dp}{da} \div \frac{dp}{db} &= \frac{d\psi}{da} \div \frac{d\psi}{db}; & \frac{dp}{dc} \div \frac{dp}{dg} &= \frac{d\chi}{dc} \div \frac{d\chi}{dg}; \\ \frac{d^2p}{dadc} &= \frac{d^2f}{dad\chi} \cdot \frac{d\chi}{dc} = \frac{d^2f}{d\psi d\chi} \cdot \frac{d\psi}{dz} \cdot \frac{d\chi}{dc}; \\ & \frac{d^2p}{dadc} = \frac{d^2f}{d\psi d\chi} \cdot \frac{d\psi}{dz} \cdot \frac{d\chi}{dc} \end{aligned}$$

This shows that the values of τ which belong to factors in separated groups (such as a and c) are equal to one another, so that we can write

$$\tau_{ac} = \tau_{bc} = \tau_{ag} = \tau_{bg} \equiv \tau_{\psi\chi} \text{ (say).}$$

Thus we may maximise separately for ψ and χ .

For
$$\frac{1}{\alpha} \frac{dp}{d\alpha} = \frac{1}{\beta} \frac{dp}{d\beta} \text{ becomes } \frac{1}{\alpha} \frac{d\psi}{d\alpha} = \frac{1}{\beta} \frac{d\psi}{d\beta},$$

giving values depending only on the form of ψ , independently of f .

A special case of the grouping of factors, which is sometimes assumed, is that in which the function f is a simple summation; i.e.,

$$p \equiv \psi(a, b) + \chi(c, g)$$

In this case we may speak of the separated groups as being independent of one another. This assumption is often permissible when p stands for the *utility* of consumption. Here, of course, the second differentials of p connecting factors in distinct groups vanish; i.e., $\tau_{\psi\chi} = 0$.

In the simple case $p \equiv f\{\psi(a, b), \chi(c, g)\}$ we can represent all the analytical work by diagrams in two dimensions. Thus, taking a, b as axes, we can maximise for $\psi(a, b)$; and represent ψ by x . Then, taking c, g as axes, we can maximise for $\chi(c, g)$, and represent χ by z . And finally taking x and z as axes, we can maximise for $f(x, z)$.

W. E. JOHNSON

THE RELATION BETWEEN THE CHANGES IN WHOLESALE AND RETAIL PRICES OF FOOD.¹

WHILE a great deal of attention has been given to the formation of index-numbers measuring the change of wholesale prices, and while in more recent times fairly successful attempts have been made to measure the movement of some retail prices, there have been (so far as I know) no serious practical inquiries or theoretical investigations as to the nature of the relation between the two groups. I propose in this article to examine this relation in the light of available statistics.

The retail price of a commodity is influenced by, and is nearly the sum of, the wholesale price, the cost of transporting the goods from the market, warehouse, or ship, merchants' and brokers' commissions, manufacturing, more transport commissions, costs and profits of retailing and delivery, interest on the capital employed in carrying the goods from the time of wholesale purchase to the time of payment by the consumer, and (in some cases) government tax.

In the case of food the only very important manufactures are the milling of grain and the baking of flour, and the taxes are small and easily reckoned, so that the principal differences between wholesale and retail prices are attributable to interest, merchandising, transport, and retailing. Of these pure interest can hardly average more than 1 per cent. on the wholesale price for the bulk of food, which passes rapidly into consumption and for which cash payment is general. We are then left with the pure costs of distribution, that is, with transport and dealing, for food in general, and in addition with milling and baking in the case of bread, and of duties in the cases of sugar and tea.

Now let us consider the effects of a rise and of a fall in wholesale prices. We must distinguish fluctuations or short-period movements in price from long-period and steady movements. The conscious effort of the retailer is to keep prices unchanged.

¹ Based on a paper read before Section F of the British Association, 1913.

If he can secure a contract from the merchant, short movements will be entirely borne by the latter or by the brokers, part of whose economic function is to carry risks. But when the wholesale price of flour or sugar or meat rises, the retailer must either raise his price or substitute an inferior article, or make less or no profit. Now wholesale prices can move by very small percentages (say 1 per cent.), while retail prices move by jumps of 6 to 16 per cent. The retailer meets this difficulty by making less than his normal profit when the rise is less than would justify his raising his price, say $\frac{1}{2}$ d., and then raising it $\frac{3}{4}$ d. as soon as the wholesale price goes up fractionally more; so that one month with another he makes a regular profit. If, however, the wholesale price rose fractionally and there remained, he would lose for some time and then recoup himself. As soon as we take an average of several months or several towns, the irregularities of relationship between wholesale and retail prices due to these differences of unit disappear. Sometimes when a tax is imposed or raised, or when the Press gives prominence to a rise of prices and the purchasing public is persuaded that a rise is inevitable, the retailer advances his prices prematurely and makes an extra profit; but his power to do this is strictly limited, in some cases by competition, and in all cases he must consider the elasticity of demand. Finally, a retailer can often keep his prices steady by balancing a loss on one commodity by a gain on another. On the whole, small short-period wholesale movements do not affect the purchaser at all.

Now let us consider the case of a permanent and considerable rise in the price of one commodity, while prices in general are steady. After the brokers, merchants, retailers, and customers have tried their strength in throwing the burden one on the other, retail prices settle at a higher level. Suppose that the wholesale price per 100 lbs. of some commodity before the change is 10s., the retail price 2d. per lb., or 16s. 8d. per 100, and that the difference is made up by 2s. commission (including waiting for payment) for the brokers and wholesale merchants, 2s. cost of transport, and 2s. 8d. retailer's gross profit. Now let the wholesale price rise to 15s. The cost of transport remains unchanged. There seems no reason why the dealers should or could charge more for any part of their services, except for the item of interest (at 4 per cent. for three months, less than 1d. additional), and since they benefit by not curtailing the sale, they should charge less rather than more. With them, as with the retailer, all depends on the elasticity of the demand. If the demand for

meat is more elastic than the demand for bread, there is a greater inducement for dealers in meat to reduce their commissions than for dealers in flour. If, in brief, all charge the same per unit before and after the rise, the retail price would advance to 21s. 8d. per 100, = 2'6d. per unit, which the retailer would make by charging first 2½d. and then 2¾d. Now on this hypothesis the wholesale price has advanced 50 per cent. and the retail price only 30 per cent. If, on the other hand, all persons concerned charged the same percentage on cost, instead of the same price per unit, the retail price would advance by a greater percentage than the wholesale, the increment growing like a snowball. No doubt all these commissions are decided in the long run, not by what (uncombined) merchants and dealers wish to do, but by the prices they must pay and can get in competition. So far as I can see, the only points to an unchanged remuneration per unit, not to an unchanged percentage. But there is no doubt a custom in each trade, and it seems to me the question calls at once for investigation as to how in fact merchants and brokers calculate their commission. When prices are falling, the same analysis applies, except that everyone concerned will try to hold the price up and the consumer's advantage will be delayed.

As regards retailing, it often happens that the consumers can be divided into two classes, whose elasticities of demand differ one from the other. Thus, a butcher can perhaps raise his price to his day customers without much affecting the sale, but not to those in the evening. In this case the working class would suffer a smaller rise than the richer class. This consideration applies especially to the very large volume of purchases made late on Saturday evening.¹

When, as has been the case for many years, prices and interest are rising *en masse*, much more difficult questions arise as to the effect on brokers', merchants', retailers', and manufacturers' charges. If in the long run we have simply the case of replacing a florin by half-a-crown in every transaction (wages, prices, interest), there is no problem. But if the rise occurred first in wholesale commodities and was reflected only in part in retail commodities and not at all in wages or salaries, we should have a troublesome problem, with innumerable actions and reactions, into which I have neither skill nor space to enter. I think, however, that as regards the period 1890-1912, some conjectures may be hazarded, as follows: changes in the rate of pure interest, on cash involved in handling, can hardly have made 1 per cent.

¹ See "Food Prices in London": Charity Organisation Society, 1913.

difference in price up or down; cost of transport has varied little, and efficiency of distribution has increased. Merchants, brokers, and retailers were probably able to hold back for their own benefit some part of the fall of wholesale prices during 1889-1896; during the period of rising wages till 1900, they could hand on more than the whole addition per unit; but during the stationary period of wages, 1901-1911, so far from handing on an equivalent *percentage* on the values handled, it must have been difficult to hand on the additional *cost per unit*.

The general conclusion I reach is that retail and wholesale prices should be connected by an equation of the form:—

Actual change of retail price per unit goods = *actual* change of wholesale price per corresponding unit $\times k$, where k is nearly equal to unity.

If k is equal to or not much greater than 1, this equation will result in:—

Percentage change of retail price per unit goods is *less than percentage* change of wholesale price per corresponding unit. The movement of retail price is presumably a little later than that of wholesale.

I think that we must accept retail price statistics with considerable reserve till the details of the theory now sketched have been worked out, and the necessary facts ascertained; for as will be seen from the following statistics, there is no uniformity of relation, and on the whole too much effect appears to be produced on retail by changes in wholesale prices. There can be no doubt as to the direction of the general movements, but the magnitudes of these movements cannot be regarded as certainly known.

The most adequate statistics of retail prices are of bread in relation to flour and grain. I have examined the monthly records from January, 1906, to June, 1913, as tabulated in the *Labour Gazette*, of the import and English Gazette prices of grain, and of flour as delivered from the mills, and of the mean of the predominant prices of 4 lbs. of bread obtained from nearly 170 reports from the principal towns of Great Britain. I am informed that in modern roller mills the weight of flour obtained averages less than 72 per cent. of the weight of grain, while that of stone-ground flour is 80 per cent. Taking 72 per cent., a quarter of grain yields 346 lbs. of flour. Now 346 lbs. of flour yields 500 to 550 lbs. of dough, which makes 460 to 500 lbs. of bread, the modern average being nearer the higher limit. From these data it results that a 4-lb. loaf contains 283 lbs. of flour, which are obtained from 3.93 lbs. of grain. During the period taken the average price of grain

(taking 5 cwt. imported with 1 cwt. home) was 8s. 1d. per cwt., of flour 11s. per cwt., and of bread 5·6d. per 4 lbs. 'The flour obtained from 1 cwt. of grain is thus worth very nearly' the same as the grain, the value of the offal paying for the expense of milling.

First take flour and bread. The average cost of the flour in the 4-lb. loaf was 3·33d., and therefore the average cost of transport and cost and profit of merchanting, baking, and retailing was 2·27d. If the latter costs remain constant, while the price of flour changes, we should have—

$$\text{Price of the quartern loaf} = 2\cdot27d. + 3\cdot33d. + \frac{\text{Price of flour per cwt.} - 11s.}{\text{No. of loaves per cwt.}}$$

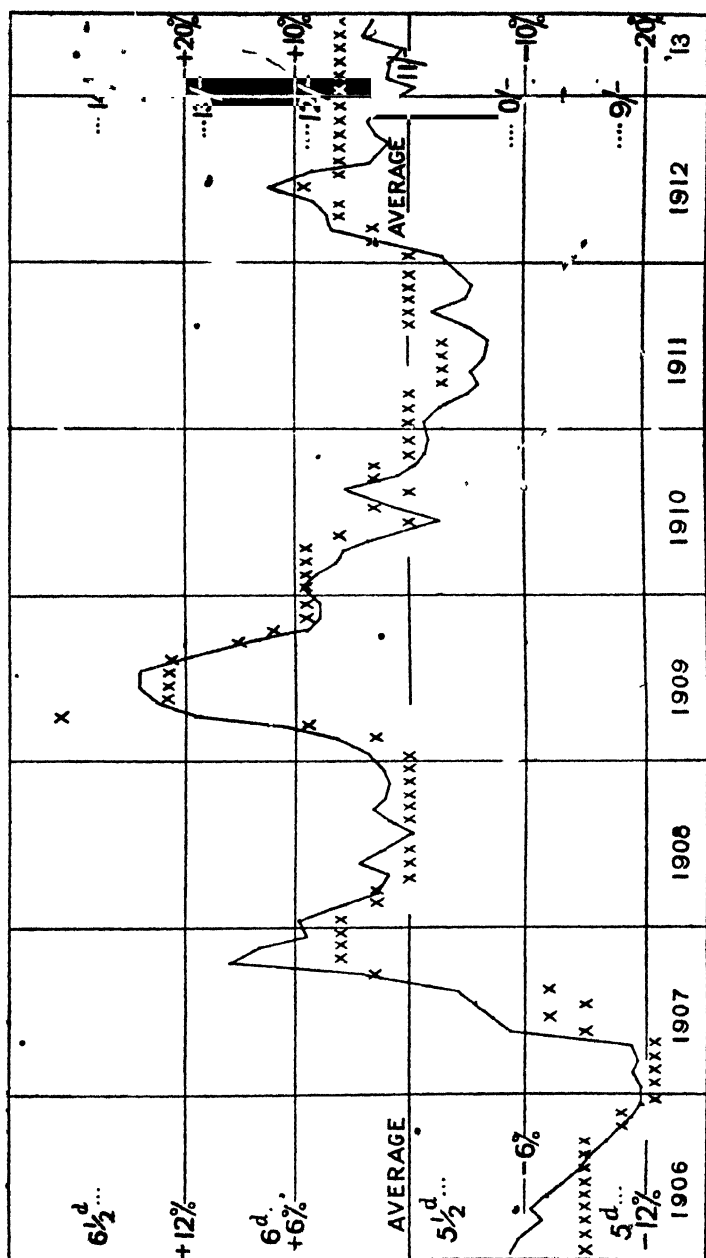
Such relations can be examined by two methods, viz., by the comparison of the standard deviations of wholesale and retail prices, and by the coefficient of correlation between them. In the present case the standard deviation for the ninety monthly prices of the quartern loaf is 0·35d., the average price being 5·6d., and the standard deviation of the prices of a cwt. of flour is 13·58d., the average price being 11s.; for the loaf and for flour, therefore, the standard deviations are respectively 6·25 per cent. and 10·29 per cent. of the average prices; in other words, so far as deviations are concerned a change of 10 per cent. in the price of flour corresponds on the average to a change of 6·08 per cent. in the price of bread. Now 10 per cent. on the price 11s. is 0·333d. per loaf (taking 39·6 loaves to the cwt.), and 6·08 per cent. on the price 5·6d. is 0·340d. per loaf; the two numbers correspond very closely; if they were exactly equal it would mean that an addition to the price of flour was carried on unchanged to the price of bread, and that charges for making and distributing were unchanged. The diagram is drawn so that the average prices are represented by the same line, and a deviation of 10 per cent. in the price of flour is measured by the same height as one of 6 per cent. in the price of bread. The bread price on the first week-day of each month is put in the same vertical line as the flour price of the previous month. Except for the lag in the rise of the price of bread in the middle of 1907, and for the exceptionally high price in May, 1909, it is seen that the bread price keeps very close to the flour price, but changes less frequently. The bread prices, however, are only averaged to 1/10th of a penny, and no change less than one-fifth of an inch on the scale is registered.

The co-efficient of correlation between these prices is 0·947.

¹ Viz. 39·6.

Scale for cwt. of Flour.

Monthly Prices of the Quatern Loaf x x x x and of Flour



Scale for Quatern Loaf

This coefficient measures how closely the bread price can be calculated by a linear formula from the flour price.¹ In this case, however, a slight error is introduced from the omission of the second decimal place in the bread price.

These two measurements, by comparison of standard deviations to test in what way a change in wholesale prices is carried on to retail prices, and by correlation to find how far other causes are also at work are used in the following table:—

	1.	2.	3.	4. 5.		6.	7.
	Average retail price.	Average wholesale price.	Ratio of 1 to 2.	Standard deviations per cent. of average prices.		Ratio of 5 to 4.	Coefficient of correlation.
				Retail.	Wholesale.		
(a) Bread and flour	d.	d.	.				
(b) Bread and grain	5.6	3.33	10 : 5.95	6.25	10.29	10 : 6.08	0.948
(c) Bread and grain	5.6	3.40	10 : 6.1	6.25	9.11	10 : 6.85	0.943
(d) Bread and grain	5.84	3.07	10 : 5.03	10.6	17.6	10 : 6.02	0.868
(e) Flour	5.5	3.23	10 : 5.5	7.2	11.1	10 : 6.5	0.91
(f) Beef	1.35	1.23	10 : 9.1	9.32	10.6	10 : 8.8	0.88
(g) Mutton	8.1	5.22	10 : 6.44	5.2	9.2	10 : 5.6	0.99
(h) Mutton	9.4	6.18	10 : 6.57	6.0	11.3	10 : 5.4	0.85
(i) Potatoes	0.735	0.398	10 : 5.41	9.7	12.6	10 : 7.7	0.69
(j) Bacon	8.33	6.58	10 : 8.14	10.2	11.8	10 : 8.65	0.92
(k) Sugar	1.85	1.05	10 : 5.7	11.2	14.4	10 : 7.8	0.90
(l) Butter	13.3	11.2	10 : 9.02	3.3	5.9	10 : 5.6	0.94
(m) Cheese	8.5	5.45	10 : 6.4	6.35	10.4	10 : 6.1	0.82
(n) Eggs per doz.	12.0	8.5	10 : 7.0	6.5	9.8	10 : 6.63	0.94
(n) Food budget ...	d. 15 0	s. d. 10 2	10 : 6.8	4.56	6.70	10 : 6.7	0.94

Line (a) in this table exhibits the numbers just discussed. Line (b) shows the relation between bread and grain,² for the same ninety months; as already stated, the quartern loaf uses 3.93 lbs. of grain, and at 8s. 1d. per cwt. (the average price of grain in the period) this gives 3.40d. for the value of grain used in the loaf, as in column (2). That the flour costs slightly less than the grain is due to the fact that the value of offals was

¹ The formula in this case is—

Excess of bread price above 5.6d. = .0244 of (excess of flour price above 11s.), where both prices are stated in pence; 0.0244 is the coefficient of correlation (viz. 0.948) multiplied by the ratio of the standard deviations (viz. 0.35 : 13.58). This equation would give the closest fit in a diagram (by method of least squares); that drawn, however, uses 0.0254 in the equation which is very nearly the same. With small correlation the difference would be considerable.

² Price of imported and home grown wheat are averaged in the ratio 5 : 1 for lines (b) and (d).

rather greater than the cost of milling. The correlation between the prices of bread and grain is practically the same as between bread and flour. In nearly all the months the price of a quartern could have been calculated nearly from the formula: "when wheat is 8s. 1d. per cwt. the quartern loaf costs 5'6d., and a change of 4s. 10d. in the price of wheat makes a change of ½d. in the price of the quartern." Line (c) shows the corresponding numbers for the annual averages of the price of the quartern in London from 1881 to 1910 (Fourteenth Labour Abstract, p. 137) and the Gazette price of wheat.

In lines (d) to (m) the retail prices used are the index-numbers of London food-prices for the fifteen years 1896-1910, published by the Labour Department.¹ The average prices for this period are deduced with the help of the workmen's budgets given in the Second Fiscal Blue-Book (Cd. 2,337). The wholesale prices used from (d) to (l) are those employed by Mr. Sauerbeck in the formation of his index-numbers²; for (j) and (k) import prices were taken. For (n) the quantities from (d) to (m), together with tea,³ are combined year by year in the proportions used by the Labour Department.

The correlations, shown in Column 7, between the wholesale prices are high throughout; it would be expected that potatoes should show more variation than other commodities, since Mr. Sauerbeck only deals with imported potatoes. It is, however, improbable that retail prices, in the smaller shops at any rate, are so clearly connected with wholesale prices as these coefficients suggest. These are rather the coefficients we should expect in large stores, from which, in fact, it is believed the prices are principally obtained.

Now concentrate attention on Columns 6 and 3. If retail prices moved exactly in proportion with wholesale the ratios in Column 6 would be 10 : 10; actually they are less in all cases. If the actual changes in wholesale prices were carried on, all expenses of dealing and transport remaining constant per unit, the numbers in Column 6 would be equal to those in Column 3; this is nearly the case with flour, bacon, cheese, and eggs. If the intermediate costs varied in part with the wholesale price, the second terms in Column 6 would be greater than those in Column 3; this is the case with potatoes and sugar. If the inter-

¹ The tea and sugar duties are subtracted from the retail prices throughout the table.

² Middling beef and mutton are taken, and German beet-sugar.

³ Tea is not included in the table because its retail price has moved apparently only when the duty has altered; no doubt the quality varies.

mediate costs varied inversely as the wholesale prices, tending to keep retail prices steady, the second term in Column 6 would be less than the corresponding term in Column 4; this is the case with beef, mutton, and butter.

The absence of a uniform rule suggests that there is a good deal to be explained in these statistics.

If we study the recent report on Rents and Prices in 1905 and 1912 (Cd. 6,955), we find that even this apparent order is replaced by chaos, and also that there is something arbitrary in the process of calculation. I do not wish to examine minutely, still less to criticise, this admirable and interesting report, but only to point out the way in which uncertainties arise. The general increase stated for the price of bread from October, 1905, to October, 1912, is 15·3 per cent., which is also the change shown for the middle zone of London. This last is obtained by averaging prices varying from 4½d. to 5½d. in 1905 and others from 5½d. to 6d. in 1912. The average for the year in London in 1905 is elsewhere¹ stated as 5·5d.; the price on October 31st, 1905, happened to be specially low. Now the recorded rise in other towns during these eight years varies from nothing in Bristol (5½d. at both dates) to 1½d. at Liverpool (4½d. to 6d.), which is quite inexplicable. A doubt as to the price of a quartern to the extent of ½d. makes 10 per cent. difference to that price, and 2 per cent. difference to the general price level, 1d. in the price of meat makes a similar difference. It is only when general averages are taken that these irregularities appear to be unimportant, and it is quite doubtful whether the process of averaging completely removes them. For these reasons it is specially necessary in the case of retail prices not to emphasise the statistics of particular years or particular towns, and in the end not to regard the measurement as exact.

When we put the data of lines (c) to (m) together and obtain (n), we find an improbably high correlation between wholesale and retail prices. We have also the surprising, but not impossible, result that the change in wholesale prices per unit (together with duties, which are eliminated from the table) are on the average exactly carried on to retail prices, without addition. The regression equation for index-numbers suggested by this line is:—

$$\text{Retail index-number} - 100 = \frac{4.56}{6.10} \times 0.94 = 0.64 \text{ ' of (wholesale index-number} - 100),$$

¹ XIVth Abstract, p. 137.

where both numbers depend on ten kinds of food and are weighted. In the following table Column 1 shows the wholesale index-numbers (Sauerbeck's and import) averaged, Column 2 the result of the equation just written, Column 3 the retail numbers combined for the ten commodities, Column 4 the Labour Department's London retail food index-number, including other commodities, when tea and sugar duties are eliminated :—

	1.	2.	3.	4.
1896	88	92	90	90
1897	95	97	95	94
1898	95	97	99	99
1899	95	97	96	94
1900	100	100	98	98
1901	97	98	99	100
1902	98	99	99	100
1903	98	99	101	101
1904	102	101	101	102
1905	102	101	100	102
1906	101	101	99	101
1907	107	104	102	102
1908	110	106	106	106
1909	111	107	106	106
1910	112	108	108	108

The differences between Columns 2, 3, and 4 are within the natural uncertainties of this kind of calculation.

There is, of course, no guarantee that this relation between wholesale prices and the retail prices, as estimated for London by the Labour Department, existed prior to 1896, nor that it will continue. In the nature of things intermediate costs cannot remain constant. The details behind the averages are so variable that this apparent constancy may be partly accidental. It is not even probable that the same result would appear in the average of provincial towns or of rural districts, and the Labour Department's Report shows that the change of prices 1905-1912 varied greatly from town to town. Nor do I think that these retail price movements are at all necessarily those that would be found in all districts or among all classes in London, for reasons already outlined. But the closeness of the relation found with that which would arise, if intermediate costs were unchanged, is so remarkable as to make it important to place it on record.

A. L. BOWLEY

THE ANCIENT COINS AND CURRENCY OF CHINA.

THOUGH China is the oldest nation in existence, and, as such, is the very place where economic students can obtain the most abundant materials as to the origin of money, yet owing to the difficulty of language only a minute part of her useful materials has been translated into Western languages. Even that part of the materials which has been translated into European languages is not really correct, owing to the lack of proper investigation or to the misinterpretation of terms.

Nowadays, the use of gold, silver, copper, and nickel coins is most prevalent, but if we study the history of coins we will see that primitive people did not use them. Metals are undoubtedly most suitable for coins, but they are not found in a pure state, and hence primitive people could not obtain them. They are concealed in the heart of the earth, and, even if they are found, some amount of refining is necessary. Thus we may be sure that the use of metals as coins is also one of the signs of civilisation, for no backward people can apply such mining and chemical processes.

All primitive peoples adopted materials of daily use as coins, and to this China is no exception. The following were the seven kinds of materials used by the ancient Chinese as coins and currency, the use of which is recorded in many ancient works : (1) shells, (2) tortoise shells, (3) skins of beasts, (4) domestic animals, (5) pearls and precious stones, (6) corn and pieces of cotton and silk cloth, (7) instruments of daily use.

The use of the above-mentioned materials as coins has been recorded in all historical and economic documents written before the birth of Christ. But I must add that some of them were used side by side with metallic coins. I will discuss them in order, thus :—

1. *Shells.*

All ancient peoples dwelling at the sea-coasts were accustomed to use shells as coins, or, rather, as a medium of exchange,

because they were very common; and we know that even to-day the people of the South Sea Islands are still using shells as their coins. But the ancient Chinese used shells more than any other people, and the reasons why they preferred shells are as follows:—

1. The shells have a peculiar lustre, which all primitive peoples liked.

2. They are very durable, and hence are suitable for hoarding without affecting their value.

3. They are very portable as their size is very small; and also they can be easily counted. The value of a single shell can satisfy the smallest transaction, and their multiplication can satisfy larger exchanges. Hence they are suitable for the medium of exchange.

4. By comparing the shells you can class them into various grades according to their quality, and hence you can have shells of various values to satisfy various exchanges.

5. They are natural products and are not quite easy to get, and thus their number cannot be greatly increased by human effort so as to affect their value. The result, of course, is the comparative stability of their value.

6. Though it requires some labour to obtain them, yet it is not so difficult and costly as metals, and hence they are more suitable to the ancients, who had a certain degree of civilisation, but not advanced enough to apply chemical and mining processes with a view to obtaining metallic currency.

For the above-mentioned reasons, all the primitive people appreciated the use of shells as currency, and especially the ancient Chinese. When Emperor Whang-ti established his empire about 3000 B.C., the capital was at the source of the Yellow River—the present Chen Chow Prefect in Honan Province. Then they gradually extended their footing along the river banks to the Yellow Sea, until about 2400 B.C. Emperor Yiao established his capital at Chao-Chow Prefect of the Shangtung Province. Thus the use of shells as currency was quite natural.

Now let me examine some ancient documents to prove the truth of my statement with regard to shells. In the ancient dictionary of Shih-veng, shells are described as follows: "They are a kind of sea insect, living both in water and on land. The ancients used shells as currency and tortoise shells as treasure. At the beginning of the Chow Dynasty, about 1200 B.C., metallic coins were introduced, and were used side by side with shells, until the establishment of the Chen Dynasty about 300 B.C.,

then shells were discarded from the currency." From the above authority we see quite clearly that during the long period before the founding of the Chow Dynasty, shells were the sole currency of China, and even after the Chow Dynasty they were still used side by side with metallic coins. It was only after the domination of Emperor Chen in the third century B.C. that they were driven from circulation, and then metallic coins took their place.

If we examine the formation of the Chinese characters during that time, we find that all economic words, whether nouns, verbs, or adjectives denoting wealth or money, contain the ideographic sign denoting the word "shell" as a component part of the whole character. Here I will give some examples as follows :—

1. Decoration or to decorate : from this we know that at the very beginning shells were used for decoration, and later on they became a medium of exchange.

2. Wealth : for in ancient times a man's wealth was counted by shells.

3. Goods or things : for everything that has an exchange value can be counted by shells.

4. Congratulation or to congratulate : that is to say, when you congratulate a man, you give him a present which can be counted in shells. In the same sense, the word to praise also contains the ideographic sign denoting "shell."

5. Reward or to reward : all rewards were given either in the form of presents, which were exchangeable in shells or directly given in shells.

6. Profits : all profits were counted in shells as we count in metallic coins nowadays.

7. Debts : all debts were recorded in shells.

8. Accumulation or to accumulate : they accumulated shells as we accumulate coins.

9. Capital : shells being medium of exchange could serve as capital to a man.

10. Pledge or to pledge : they pledged in the form of shells.

11. To redeem : all redemptions were made in shells.

12. Expenditure : all expenditures were kept in the form of shells.

13. Price : it was quoted in shells.

14. Buying and selling : as all payments were made in shells.

15. Dear or noble : costing a lot of shells, or possessing a lot of shells.

16. Cheap or mean : worth few or no shells.

17. Tax : people paid tax in shells.
18. Greedy : coveting shells.
19. To hire : paying wages in shells.
20. To bribe : paying bribes in shells.

The above twenty words are, of course, only some of the words formed from the ideographic sign denoting "shell," and from them we can draw the conclusion that the use of shells as currency was very prevalent, and also that it lasted for a considerable period of time, otherwise they would not have been able to influence the Chinese language so much. Then, again, we have numerous examples in ancient literature, where they use shells to denote a man's wealth, as we do at present in taels, pounds sterling, dollars, or francs.

The ancients used them generally in pairs, that is, by tying two of them with a piece of thread. A pair of shells was called a "Beng"—literally, a friend. Later on, when "Tag Money" and metallic coins were introduced, they bored holes in them, so that people could tie them up as they did with shells. Even to-day the Chinese are still accustomed to tie 1,000 cash by passing a piece of string through the holes to form a "String."

Of course, we must take note that the economic words given above did not arise at a certain definite period, but extended all over the Hsia (2300 B.C.), the Sheng (1800 B.C.), and the Chow (1150 B.C.) Dynasties—from 2300 B.C. to 300 B.C. This alone gives us a definite idea of the long duration of shell currency in China.

2. Tortoise Shells.

The use of tortoise shells as currency has been recorded in numerous ancient books, from which I make a few quotations:—

1. An ancient dictionary says, "The ancients used shells as currency and tortoise shells as treasure." This tells us that they were used only in exchanges of great value.

2. The Book of Rites says, "The feudal lords all consider tortoise shells as treasure."

3. The Book of Hans says, "Currency comprises cloth, 'tao' (knife money, which I will discuss later on), tortoise shells, and shells." In the same book it is also recorded that when the Chen Dynasty annexed all the feudal kingdoms about 300 B.C., the use of tortoise shells and shells as currency was prohibited. Thus, it is quite clear that before the advent of the Chen Dynasty the use of tortoise shells as currency was very prevalent.

Doo Shu, an ancient writer, supposed that the use of tortoise

shells as currency was started at the time of Emperor Shing-nun about 3500 B.C., but up to now we are unable to find documents to prove the truth of his statement.

4. The Book of Changes says, "Give him ten 'Bengs' of tortoise shells": that is to say, give him a piece of tortoise shell worth ten pairs or bengs of ordinary shells—20 ordinary shells.

The reasons why the ancients preferred tortoise shells are threefold: First, they are very durable, and hence suitable for currency. Secondly, they are more difficult to get than ordinary shells, and hence more valuable. Thirdly, they are divisible, and hence more convenient for exchanges than ordinary shells. But owing to the second reason, they were not so widely used as ordinary shells, for they were too valuable for ordinary transactions, and owing to the third reason, their value was not so stable as ordinary shells, for, once divided, their great value was immensely diminished.

I must add that tortoise shells were also used by the ancient Chinese fortune-tellers to predict a man's future prosperity or adversity. I suppose that those tortoise shells could be used for predicting futures as well as for a medium of exchange. Sometimes they were used in their entirety, and sometimes they were divided into small pieces to satisfy various kinds of exchanges.

At the city of Kon-yiu-li, in the Province of Honan, thousands of pieces of tortoise shells were dug out from the earth in the twenty-fifth year of Kwang-shu of the late Manchu Dynasty (about 1899 A.D.) by a man surnamed Wong. By examining the characters carved on them, we know that they were stored up as early as the Ying Dynasty (about 1800 B.C.). From this fact we know that the ancient Chinese used them as currency over a long period.

3. *Skins of Wild Animals.*

The most suitable and convenient article for currency in the Hunting Age was undoubtedly skins of wild animals, as they were the very material which all peoples of that period valued. They could be used as material for clothing as well as a medium of exchange, because they were comparatively durable, and their quality and quantity could be easily detected by those primitive peoples. We find many instances in all ancient histories.

In our country, however, the invention of written language came after the passing of the Hunting Age, and hence we cannot find so many instances of their use. Nevertheless, we do find

some instances in our ancient literature of the use of skins of wild animals as currency.

Those books which record the use of skins of wild animals as currency, all agree that they were used only for exchanges of great value or for presents; because after the passing of the Hunting Age skins became very scarce and their price rose considerably, with the result that they were only used by emperors and nobles on great occasions.

In the Book of Rites it is recorded that the skins of tigers and leopards were used as presents between emperors and feudal lords, and between lords and lords, and that the skins of deer were used as presents between lords and ambassadors and ministers of State. It is also recorded that certain excises were sometimes paid in skins of deer.

From the Chen Dynasty (about 300 B.C.) onwards hunting was almost abandoned, and hence the value of skins was considerably enhanced. Then, again, it was also at that period that metallic coins were largely used in the market, and, for these two reasons, skins of wild animals were driven out of the realm of currency. It is recorded in history that Emperor Wu of the Han Dynasty (about the beginning of 200 B.C.) ordered a piece of white deer skin of one square foot in size to be made, and it was valued at 400,000 cash, or about 400 dollars of the present currency. He forced all princes and noblemen to use it, but without success.

4. Domestic Animals.

Domestic animals were generally used by the ancients of most countries as a medium of exchange, as the history of those countries usually begins in the Pastoral Age. But in our country it was not so, for China had passed the Pastoral Age when her authentic history begins. The authentic history of China begins at a time when agriculture was the predominant industry of the country. However, if we examine the ancient documents, we can find some instances to prove that the use of domestic animals as a medium of exchange was also practised in ancient China.

Mencius mentions in one passage that the grandfather of the founder of the Chow Dynasty paid tribute to the tribal head of Shen-si by means of skins of domestic animals, pearls, precious stones, dogs, and horses. This fact gives us at least some idea that domestic animals could be used in paying tribute, and we may infer that they could also be used as a medium of exchange.

Then, again, when Emperor Wu of the Han Dynasty, about

240 B.C., ordered the mintage of metallic coins, the image of a horse was struck on the face. We may reasonably infer from this that domestic animals were used as currency by the ancients, and consequently Emperor Wu struck the image of a horse on the face to give to his coins an historical value.

5. *Pearls and Precious Stones.*

The use of pearls and precious stones as a medium of exchange is perhaps too inconvenient, as they are too valuable and too delicate. Consequently, their use was limited only to exchanges of very high value, and was confined to the nobles and merchant princes.

We may here mention two instances from ancient documents to prove that they were used as currency in ancient China. Kwan tze, the eminent ancient economist and statesman, says, "The ancients considered pearls and precious stones as first-class currency." The Book of Han says, "Pearls and precious stones were not considered as a kind of currency, when the Chen Dynasty absorbed all the feudal kingdoms about 300 B.C."

From the above-mentioned two instances it seems that pearls and precious stones were used as currency by the upper class of the ancient Chinese during a considerable period of time.

6. *Corn and Pieces of Cotton and Silk Cloth*

The ancient Chinese were accustomed to use corn and pieces of cotton and silk cloth as media of exchange, and their use is widely discussed in numerous documents. Those materials were regarded by the ancients as having two qualities, namely, as directly consumable commodities, and also as media of exchange. Here I will give some examples from Chinese ancient documents to prove the truth of this statement:—

1. The Book of Chow says, "The duty of the county officer is to gather corn both from open fields and from suburban lands with a view to cover the national expenditures."

2. The same book says, "The duty of the borough officer is to collect fine cloth, rough cloth, pledged cloth, and fined cloth to support the national treasury."

3. The same book also says, "The duty of the city officer is to collect cotton and silk cloths as fines from those houses which do not cultivate lands, and from those individuals who have no employment."

4. The same book further says, "The duty of the director of currency is to collect from both central and local treasuries various

kinds of national currency, which may consist of corn, cloth, and metallic coins."

The use of corn as a medium of exchange was quite prevalent in normal years, but in times of national calamity metallic coins were introduced to take its place. Now let me mention some examples from ancient literature to prove the above statement :—

1. Chen Chong, the eminent ancient writer, says, "In times of famine and flood, commodities became very dear. But gold and copper have no famine year. Therefore, whenever the price of commodities becomes very dear, then gold and copper coins must be minted in large numbers to enrich and relieve the people."

2. The Book of Koh-Yuen says, "In times of famine and flood the ancients used to coin large numbers of gold and copper coins to relieve the people "

3. Kwan-tze said, "During the five years of flood, Emperor Yui, about 2295 B.C., minted the gold of Luh-san into coins to relieve his people's poverty, and during the seven years' drought Emperor Tang, about 1760 B.C., minted the gold of Chong-san into coins to redeem his people who sold their children for food."

From the above-mentioned passages it is quite clear that whenever the price of commodities rose extraordinarily high, then gold and copper coins were minted to relieve the situation. But this method is contrary to economic laws, for the more coins you have put into circulation, the less will be their purchasing power; or, in other words, the price of commodities will rise still higher. Now how can we account for this peculiar method, adopted by all ancient Chinese, of minting large numbers of gold and copper coins whenever famine and flood occur? If we bear in mind that corn was used by these ancient Chinese as medium of exchange, there will be no difficulty in accounting for that peculiar method. Every year at the time of harvest, the government officers collect a part of the corn from various sources for the public treasury to be put into circulation, and the rest of the corn would be used as food for the people. Now in times of famine and flood, when corn would not be obtained from the fields, then the prices rose considerably owing to scarcity. But the people could not dispense with their food, and consequently that part of the corn which had been accumulated from time to time, and which had been put into circulation as a medium of exchange, must return to fulfil its proper function, i.e., a means of subsistence to the starving people. In order to withdraw corn from circulation, the ancient Chinese then minted large numbers of gold and copper coins to take their place as a medium of exchange.

It is precisely the same method adopted by all modern financiers and statesmen—that is, to issue more paper money with a view to pacifying the excited public and to relieving the money market.

The use of cotton and silk cloth as media of exchange was very prevalent in China, and lasted for a considerable period of time. It was even reported that their use was started long before the Tang and the Yui Dynasties, about 3000 B.C.; but of this statement we have no authoritative proof. What we do know is that they were widely used during the Golden Ages, the feudal times, the Chow Dynasty and the subsequent dynasties, until the Ming Dynasty (2400 B.C. to 1466 A.D.).

I will now examine certain documents to prove the method adopted by the ancients with regard to the use of cotton and silk cloth as currency. The Book of Chow says, "The duty of the city officer is to collect fines from those houses which do not cultivate lands in the form of cloth, called *Li-pu*."

Chen Chong, an eminent ancient writer, says, "*Li-pu*, or cloth paid for fines, is a piece of cotton or silk cloth of two *tsah* in length and two *tseng* in width, with official seals on it." It is the Pu-money, or cloth money, and is called a *fong*.

In the miscellaneous articles of the Book of Rites, the following tables of measure for ordinary cloth and for money cloth were recorded :—

10 <i>tseng</i> = 1 <i>tsah</i>	}	Measure for ordinary cloth.
8 <i>tsah</i> = 1 <i>Zing</i>		
2½ <i>Zing</i> = 1 <i>Kun</i>		
2 <i>Kun</i> = 1 <i>liang</i> or <i>p'ih</i>		
5 <i>liang</i> or <i>p'ih</i> = 1 <i>soh</i>		
4 <i>fong</i> = 1 <i>Zing</i>	}	Measure for cloth-money.
5 <i>Zing</i> = 1 <i>p'ih</i> or <i>liang</i>		
5 <i>p'ih</i> = 1 <i>soh</i>		

Now from the second table we see that the standard of Pu-money was *liang*, or *p'ih*, and its subdivision was *fong*, which was a piece of cotton or silk cloth of two *tsah* in length and two *tseng* in width, and which was widely used as medium of exchange. When exchanges of greater value were involved, then *liang* itself was used, which was equal to twenty *fongs*. The highest multiple was *soh*, which was equal to one hundred *fongs*, but it was too big for daily exchanges, and hence was used only for presents among nobles and merchant princes.

The use of Pu-money was clearly recorded in one of the articles of the Book of Spring and Autumn, which says: "A man of Lu (the name of a feudal State) bought two *liangs* of silk cloth worth one hundred *liangs* a piece." That is to say, each piece of the

said silk cloth was sold at 100 *liangs* of ordinary Pu-money by the seller.

Ordinary shells, tortoise shells, and skins of beasts are all natural products, and consequently they cannot be made exactly to suit the various exchanges of the ancient people. Though ordinary shells and corn are small in size, and as a result can be increased and decreased by means of a scale so as to suit all kinds of exchanges, yet the method of weighing was too inconvenient. Thus they were not so widely used by the ancient Chinese as Pu-money, which is an artificial product and can be made to any size and form as they like. The convenience of Pu-money was clearly seen by the ancients, and consequently it was widely used for a considerable period of time. When metallic coins were minted at a later date they were still called Pu-money, and that fact alone shows us clearly the importance of Pu-money in those times.

Another instance to show the importance in ancient China of Pu-money is the retaining of the character *liang*, the standard of Pu-money in the later silver currency. The standard of the present Chinese silver currency is *liang*, which is the same character as the standard of Pu-money. Though the Europeans translated the character *liang* of the silver currency into *tael*, yet in Chinese it is exactly the same. When Emperor Chen of the Chen Dynasty minted metallic coins about 253 B.C., he named them half-liang; that is to say, each metallic coin was equal to one half *liang*, or ten *fongs* of Pu-money.

The ancient Chinese were very particular with regard to Pu-money, and as Chen Chong, an eminent ancient writer, stated, each piece must bear three official seals on the face to avoid forgery. The Book of Rites says, "Cloths which are not uniform in fineness and which are not uniform in width are not allowed to be circulated in the market." Thus we see that the right of mintage was reserved to the Government even in those times.

Again, we must bear in mind that as a *fong* of cloth was only two *tsah* in length and two *tseng* in width, its use as ordinary cloth was out of the question. The *tsah* of the Chow Dynasty was only eight *tseng* of the present Chinese measure. Therefore, one *tsah* of the Chow Dynasty is about $11\frac{1}{2}$ English inches, and one *tseng* is about $1\frac{3}{25}$ English inches. From this we know that the length of one *fong* was about 23 English inches and the width was about $2\frac{6}{25}$ English inches. Thus, they were specially made for circulation as media of exchange.

Throughout the eight hundred years of the Chow Dynasty—

1100 B.C. to 300 B.C.—Pu-money was the most important currency in China, and we may, indeed, call that period the age of cloth standard. Though other materials were also circulated side by side with Pu-money, yet they were of minor importance. Thus the use of Pu-money was special to China, as silk and cotton are two of her most important products. With the advent of the Chen Dynasty, 300 B.C., metallic coins were introduced, and other materials were driven from circulation; but the Pu-money remained the same, until the beginning of the Ming Dynasty about 1466 A.D., as all official salaries before the Ming Dynasty were recorded in terms of *liangs* of silk cloth.

7. Instruments of Daily Use.

About the beginning of the Chow Dynasty it occurred to the ancient Chinese that for the purposes of exchange it would be advantageous to substitute for various objects of daily use, such as knives, hoes, sickles, spades, &c., small metal models which might represent the objects themselves.

With this end in view they coined many pieces, representing the most common agricultural implements which everybody used during the agricultural age. We find many ancient coins resembling hoes, sickles, and spades, and they were also named after them.

But if we bear in mind that China was at that time under the sway of feudalism, we will understand that war implements were the most important objects which everybody wished to possess, for internecine war was no uncommon occurrence. Now the art of manufacturing war implements was known only to a few people, and consequently the rest of the community was anxious to exchange them with other articles. Gradually they became the common medium of exchange, and later on, when metallic coins were introduced, their shape and name were still used. Among the ancient war implements the swords were the most useful, and hence all the ancients used to name metallic coins *tao* (sword).

The first Tao money was struck by the Grand Duke of Tsi, the founder of the kingdom of Tsi (Tsi is the present Ching-chow Prefect of the modern Shang-tung Province) during the reign of Emperor Wu of the Chow Dynasty, about 1120 B.C.

Figure 1 represents the original Tao money, as struck by the Grand Duke of Tsi. It was about 7 inches in length and weighed about 740 grains. The Duke's idea was to use it to represent the real sword, which was too inconvenient in ordinary transactions.

But the Tao money was also too long to be used in daily transactions, and so gradually the blade of the sword was shortened, and only the handle remained. At the same time, the end of the handle, which was pierced by a hole, so that the coins might be strung on a cord, was enlarged. This change took



• FIG. 1.—Early Tao Money.



FIG. 2 —Later Tao Money.

place sometime in the Han Dynasty, but we have no proof as to the exact date.

Figure 2 represents the Tao money as used and re-formed by the people of the later period. However, the handle of the Tao money was still too long for daily transactions, and so another



FIG. 3.—Cash as used at present

change took place. The handle was dropped, and only the end of the handle remained. (See Figure 3.) When that change took place we have no authentic date, but the new coins are still used at the present time and are called cash (about 1/36 of a penny).

Our investigations, therefore, show that there were seven kinds of materials used by the ancient Chinese as media of

exchange, but only three of them were of any importance, while the rest served as subsidiary money only. The three important ones were shells, Pu-money, and Tao-money. Shells were the sole currency before the establishment of the Chow Dynasty, 1100 B.C., and even after that time they were still used side by side with metallic coins, until the advent of the Chen Dynasty, 300 B.C. Pu-money was the standard currency of the Chow Dynasty, and it held sway in the subsequent dynasties in a lessened degree, until the advent of the Ming Dynasty, 1466 A.D. It lasted for a period of more than 3000 years. On the other hand, the Tao-money struck by the Grand Duke of Tsi about 1120 B.C., survived all the rest, and its reformed form is still used at the present time.

CHI ZANG WAUNG

GERMAN EXPERIMENTS IN FISCAL LEGISLATION.

I.

IN my article on the "Taxation of Unearned Increment in Germany" (ECONOMIC JOURNAL, June, 1911), I wrote as regards the then newly issued Imperial Law: "The experiment of the local administrative authorities has been transplanted into Imperial affairs, and in all probability it will be found necessary, after many experiences, to undertake a revision of the Act of 1911. In the meantime the complications of the problems to be solved will cause a great deal of trouble."

This revision has begun sooner than anyone could have expected. The new Imperial Tax legislation (July, 1913), carried in the Reichstag by a large majority, has put an end to the Act of 1911. The experiment of 1911 has been amended and superseded by the experiment of 1913. Not only so, but within a very short time more a new and far greater financial reform has been decided on, which, in its turn, is of an experimental, though highly important, character.

To explain this a few words are necessary in regard to the financial evolution of the Empire. This evolution has been a struggle against many difficulties:—

(1) The dual nature of the Parliament by whose consent the new taxes are brought in—a consequence of the federal constitution of the German Empire.

(2) The difference in the mode of election to the two Parliaments:—universal suffrage holds good for the Empire, but in Prussia the suffrage is graduated according to the census, and gives to the large ratepayers an overwhelming influence in the elections.

(3) Each of the two Parliaments has to weigh the opposition of these electorates to the introduction of any taxes. On simple financial grounds the Empire has assigned a great preponderance to indirect taxation. In the separate States, on the contrary, direct taxation preponderates. A parliament elected by universal

suffrage refuses its consent to indirect taxation with as much opposition as a parliament whose suffrage is determined by the census is likely to show to taxes which chiefly touch the well-to-do classes (such as income taxes, property taxes, &c.).

(4) In the two Parliaments, but particularly in the Reichstag, the first conditions of parliamentary government are lacking, i.e., two ruling parties, which change places according as each obtains a majority in the elections upon which it can rely. In Germany the individual States, and particularly the Empire, must rather expect to find at the close of elections and after legislative experiments party majorities which can only occasionally last for more than a year or two.

(5) The difficulty does not only lie in the large number of parties. It is added to by the character of the parties themselves. Economic, nationalist, clerical, constitutional, and Utopian tendencies divide them one from another. More than a quarter of the members of the Reichstag belong to the Social Democratic Party, which has begun of late to change from a party with an habitually negative policy to one with a more than usually assertive policy.

We have only mentioned, above, the chief obstacles. It is enough, however, to show why financial affairs have become so great a difficulty. In Prussia a fortunate surplus has appeared to meet the deficit, arising from the profits of the State Railways (cf. *ECONOMIC JOURNAL*, 1907, "Government and Public Finance"). In the Empire the deficit has been met by the growth of liabilities, which now stand at £250,000,000. This would have been still greater if the Empire had not made a kind of fortunate speculation, which no one had expected to justify on fiscal grounds, namely, through the corn tariff. It turned out, indeed, to be little less than a great fiscal speculation, although it was only introduced and carried out for the protection of agriculture against the competition of the world market.

Nevertheless Imperial taxation of this kind, in a Parliament elected by universal suffrage, has plainly reached the point where a pause must be made in the increase of indirect taxation on the consumption of the working classes. So it happened in 1906¹ that a beginning was made to meet Imperial finance through taxes that chiefly fall on the propertied classes, namely, inheritance duties, which, however, leave the next-of-kin free. Taxes

¹ Cf. for the legislation and experiments of the years 1900-12, my essays—*"Considerations on the Financial Reform of the Empire, and Related Matters"* (Stuttgart, 1910), published before the New Bill of 1913.

on the Exchanges, inadequate attempts partially to burden mobile capital, had preceded these laws.

The Bill, which Prince Bülow laid before the Reichstag in 1908 (in continuation of the policy taken up in 1906), attempted to tax the whole of inheritances through an estate duty. After a heated parliamentary struggle it was thrown out in the Reichstag, and Bülow was forced to resign.

The majority of the Reichstag (Conservatives and Clericals) who supported Bülow in 1909 felt themselves compelled to offer some compensation for the rejected estate duty. At the close of a wearisome session, a few weeks after Bülow's resignation, the well-known scheme for taxation of unearned increment was, among other things, decided on. For the two years following this remained law, but was to disappear again after a short trial. Among the other new taxes of 1909 there was a stamp duty on cheques, which, however, was soon repealed in 1913, since it had only proved a check on the effective circulation of cheques, too little developed in Germany as it is.

II.

The problem of the further development of death duties remains to be solved. They really embody a demand for equality in the distribution of taxation rather than an important addition to the imperial revenue. This latter problem was, nevertheless, a far larger one in every way. The chief work of the session 1912-13 lay in its solution. It was understood that a means must be found to put an end to the increase of the Imperial Debt. For some years promises had been given in the Reichstag, as well as on the part of the representatives of the Imperial Government, that in the future no more debts should be contracted unless for productive purposes. It happens, however, that the Empire has little occasion to contract this kind of debt (such as the Prussian State has contracted by the purchase of the railways), so that the promise means that on no account must further imperial indebtedness be incurred, *i.e.*, that all expenditure should be covered by taxation; and that for each important new piece of expenditure, new taxation should be imposed or old taxes increased.

Hitherto the following had been a favourite means for solving this problem. It is possible to distinguish between ordinary and extraordinary expenditure, corresponding to ordinary and extraordinary demands. The increase of the army and navy was an extraordinary expenditure compared to the yearly recurring needs

for the payment and clothing of the troops and such like requirements, these being reckoned among the ordinary demands. To meet the ordinary annual demands by incurring liabilities is really impossible in an ordinary Budget. A State which does this and incurs a debt for such a purpose, is drying up the sources of credit. It is more allowable to borrow for a so-called extraordinary or *occasional* purpose. This has been the case hitherto in the German Imperial Budget, and also in the other Budgets of the Federated States. It is obvious, however, on closer inspection that the difference is only superficial. In reality the expenditure is not extraordinary, and still less non-recurring. It recurs nearly every year, only not always to quite the same extent. Looking back over the last ten years we have an easy standpoint from which to average the yearly returns, and at the same time to allow for an increase when the progressive rate of expenditure is taken into consideration.

It happens, in addition, that the growing burden of indebtedness leaves behind a deposit of recurring expenditure through the increasing burden of payment of interest. The German Empire has an annually recurring expenditure of this kind amounting now to £10,000,000, from which its Budget would be free if it had incurred no liabilities.

On the other hand, the new plan to stop incurring liabilities is rather ideal, and it is doubtful whether it would be possible to carry out such an admirable system. Already for some time past similar intentions have been expressed, and fresh indebtedness nevertheless has always been incurred. Moreover, from what source are the new taxes to be drawn if the scheme is to be possible? Hitherto it has been difficult enough to increase the returns of taxes in order to cover merely the increasing ordinary expenditure, which, apart from the extraordinary expenditure, was absolutely necessary. It was only through the extraordinary measures which made last year notable, in that even so substantial a result as this was brought about. It is true, moreover, that for an unusually great and peculiar end, it is worth while to negotiate an adequate, unique, and non-recurring piece of taxation of unusual severity.

III.

The occasion presented itself at the beginning of 1913, when for the purpose of the increase in the army the Reichstag had to vote a new bill. An extra demand for £50,000,000, and a permanent demand for £10,000,000, was involved. A large

majority of the Reichstag was immediately ready to concede the increase in the army. Not quite so quickly, however easy comparatively, could a majority be found to pass the necessary taxation to meet these demands. It is worth noting that it was easier to find the sum of £50,000,000 for the extraordinary demand than the sum of £10,000,000 for the permanent demand.

Hitherto, when such cases have arisen, the most unusual of the demands has been used as an excuse for incurring liabilities. But this time its unusual, non-recurring character was valuable as an excuse for the requisition of a property tax, which has been given officially the curious title of "defence contribution";—curious in that it uses the incorrect name of "contribution," evading the correct title of tax. It is not desired to call the property tax by its right name so long as an important part of the Reichstag, and especially the administrators of the separate States, want to lay hold of the property tax for the financial demands of the individual States. It is worthy of remark that an incorrect name, and in particular the "occasional" nature of this tax, should be enough to allow the imposition of an enormous property tax for the purpose of imperial finance.

One feature of this new imperial tax was specially noteworthy. It was the complement, which the imperial Budget had hitherto almost excluded, to indirect taxation. It was a complement intended to touch the propertied classes, and also to reach the ranks of the middle class and small occupiers. The proposal of the Imperial Government was to raise half per cent. (on a uniform scale) on all property amounting to the sum of £500 and upwards. But it was not possible to have nothing more than a property tax in the strictest sense, since justice forbids that large personal incomes which are not derived from property should be free from the tax, while such small sums as £500 are taxable. For that reason personal incomes of £2,500 and over were to be burdened with a 2 per cent. tax, except in so far as an equal or higher sum has already been taken from the property. A uniform treatment in the Bill of personal incomes covering a wide range (those below £2,500) is avoided by the Bill on the same grounds as those on which a progressive scale for the property tax is avoided, namely, in the interests of the simplification of taxation and its assessment.

The Reichstag Commission has radically altered the Bill in both respects. The progressive scale advances in a continuous grade by uniform steps, and has been brought down to personal incomes of £250. Thus, the new tax has in truth become an

income and property tax in the form in which the Reichstag passed it on the 30th June, and to which the Imperial Government gave its consent. The original plan of the scheme was to raise the tax in two contributions (1914, 1915), for which the Reichstag has substituted three (1914, 1915, 1916).

The property tax begins on property of £500. But if the total income from all sources amounts to less than £200, property up to £1,500 remains free from the tax; and with a total income of less than £100, property up to £2,500 is free.

The amount of the property tax is 0·15 per cent. for the first £2,500 on each property (the larger properties as well), and thereafter on the following scale:—

£				
2,500	...	...	...	0·35 per cent.
5,000	..	...	...	0·30 „
15,000	...	...	...	0·70 „
25,000	...	...	...	0·85 „
50,000	...	...	...	1·10 „
150,000	...	...	...	1·30 „
250,000	...	...	...	1·40 „
for higher sums	...	...	...	1·50 „

In the same way, personal income is subject to progressive taxation. At the bottom of the scale, on incomes between £250 to £500, 1 per cent. is imposed, with progressive steps up to 8 per cent. on incomes of £25,000 and over. In the case of an income part of which is drawn from property, 5 per cent. of the taxable property is deducted from the total income, and the rest is the taxable income. According to this, a property of

£4,000	pays a tax of	...	...	£9
£225,000	„	„	..	£2,530
£1,600,000	„	„	..	£22,850

In the Canton of Zürich the property tax amounts to

4½	per mille for the State
8½	„ „ for local taxation (on an average)

i.e., 13 per mille yearly, without, however, being subject to progression, not as an extraordinary tax, but as regularly recurring taxation year after year. But what is chiefly to be remarked of the assessment is the extent to which it has changed since the time that Adam Smith (on the authority of a French official work) praised it in respect of the height it reaches to, and in the laxity of the forms of collection, which have very feeble force in meeting the opposition against so high a tax. In Zürich the general belief is that on the average only half of the actual property is assessed, which means one-sixth of the property income (16½ per cent.).

The existing property tax in the separate German States is still inconsiderable. In Prussia half per mille (Act of 1893) is allowed to the State, but not for local taxation. All the more thoroughly, therefore, is the income tax developed for State and municipality so as to include all kinds of income, while the property tax represents a supplementary burden corresponding to the greater taxable capacity of incomes from property. The income tax to-day amounts roughly to 10 per cent., an average allowing for great differences in the amount of the communal supplement. The Imperial income tax of 1913 does not, therefore, find so much new scope as in the property tax; or, in other words, it is the imperial tax which is resulting in an energetic administration for the first time of the additional charge on incomes from property, while the undifferentiated universal income tax is already a heavy burden for States and municipalities.

The existing regulations for the administration of taxation in the separate States are to be used to carry through this new law. It is a novelty to employ these regulations for the purpose of an imperial tax. What is accomplished during the next few years will teach us the result of this great experiment.

The financial measures which in the Reichstag are emphasised as "occasional" or "extraordinary" should be looked at in more than one way: First, from the standpoint of the success of the new experiment; second, and equally important in the event of a favourable result, how the future development of imperial finance will be affected. While, in the future, no further imperial liabilities are to be incurred, on the other hand, the new imperial tax is only to be levied once. What further financial expedient is there to be used for extraordinary purposes? In the future will the problem of indebtedness be really overcome?

IV.

However that experiment turns out, the content of the new measure lies in a region accepted by modern science and legislation on taxation and finance. It is, otherwise with the second measure, passed on the same day, which is directed towards meeting the remaining imperial expenditure. This is experimental, owing to the peculiar nature of its object. No authorities on legislation and finance have had up till now anything to say on the matter. It goes beyond the idea of the taxation of unearned increment through a mixture of confused doctrine with the opportunism and compromises which the complex

political situation made necessary. In all probability it will prevail for no more than a few years, and will be abandoned after some experience of its working, as in the case of the law of 1911.

It would have been convenient to take up the duty on inheritances which had been laid on one side for years, and to meet thereby the debt incurred in 1909. But there were difficulties in the way, which recalled that year and its failures. The imposition of death duties was left in the hands of the Empire by the law of 1906, after these taxes had been taken out of the hands of the separate States. But the difficulties remained almost the same, because the opposition of 1909, namely, the Conservatives, and, in some degree, the Clericals, continued to oppose the extension of the tax to the next of kin.

The property tax again, which hid itself as an extraordinary tax under the incorrect title of *Wehrsteuer*, would not be accepted as an ordinary imperial tax, partly because the separate States wish to reserve it for their own financial needs, and partly because the Prussian Landtag elected on the basis of the Census offers a better protection for the propertied classes against the property tax than can be found in the Reichstag, which depends on universal suffrage. In their antipathy towards this tax, also, the same two parties are found united.

From this negative state of affairs the curious position arises that there is no tax on inheritances or property, but that from each a tax is collected, and accepted under the name of property increment tax. It is to this creation of party compromise that the Imperial Government gave its consent. It is an example of the kind of legislation it is driven to attempt owing to the difficulties arising out of the motley character of the parties, and because the plain and undoubted truth must be put out of the way. It is an experiment which will probably prove itself unsuitable in a few years, and at the best will turn into an ordinary inheritance duty. It will not hit property or inheritance in the usual manner, but through the medium of an increase in property during prescribed intervals of time. At the moment this amount of success has been achieved, that the Clerical party has been won over in its favour, while the Conservatives have kept up their agitation against this law also.

The content of the law is as follows:—

The property increment duty touches the increment shown by comparing the magnitude of the property increase at different periods. The entire movable and immovable property after deduc-

tion of liabilities is reckoned as property for the purposes of the tax. The increment must be reckoned on each occasion over periods of three years, the first falling due on the 31st December, 1916. The property of individual owners under £1,000 remains free from the tax. Increment under £500 is also untaxed. On property between £1,000 and £1,500 the increment will only be taxed in so far as it exceeds the tax-free limit of £1,000. The tax introduces a double progression, namely, for the amount of the income, and the amount of the increment.

Increments of from £500 to £2,500 are taxed at 0·75 per cent., and the scale then gradually ascends, increasing by a maximum leap of $1\frac{1}{2}$ per cent. on increments exceeding £50,000. Next, the second scale, which is determined by the amount of property, fits in. The above tax scale rises upwards from 0·1 per cent. on properties of from £5,000 to £10,000 (the lowest step), to 1 per cent. on property over £500,000 (the highest step).

Property obtained by inheritance will also be treated as increment, including direct inheritance by children. Only the inheritance of a surviving husband or wife remains untaxed.

These are, briefly, the most important points of the new law. The inheritance duty is therein extended, as we have seen, to the inheritances of children. For the first time a law has been passed for the whole German Empire, which hitherto had only been law for isolated minor States (Hanseatic towns, Alsace-Lorraine). In the Empire (1908-9) only a useless endeavour had been made by the imperial authorities, and in Prussia (1890) the Government's attempts had been rejected by the parliament. Now at least we have in virtue of the new experiments a tax on the inheritances of children—though on a very small scale. In the case when the inheritor is a minor, and the property does not exceed £2,500, the tax is reduced by 5 per cent. for every year by which he falls short of twenty-one years of age, up to 50 per cent.

The property increment tax might have found justification if the normal and long well-understood property tax had already reached its full development in the individual German States. That would have justified the Empire in not making further use of the same measure, and in putting in its place this new experiment. This, however, is not the case. The property tax in the individual States has existed hitherto only in embryo—in Prussia half per mille. In spite of this beginning there remains a very large taxable capacity in property, and especially, perhaps, in the largest properties, the increase of which is not

affected by the burden of the tax. The increase in property would also be reached through the property tax, while such a tax would touch the whole property one year with another, whether it has increased or not. The person with a large income pays more tax than the person with a smaller income. But it is nonsense when, from the point of view of the property increment tax it is laid down: that if two people, each possessing property of £5,000, the one for a year, the other since birth, it is in such a way liable to payment that only the person who has had the property for one year can be taxed, and the other because he has had it from birth goes tax free. The millionaire who consumes his interest every year will be free from the tax; but the owner of £1,000 will be taxed when he has saved £500 in three years.

It is necessary to realise all the difficulties attendant on the nature of the parties in the German Reichstag, in order to understand how this curious experiment has been brought about. It is, in fact, the contrary of what the name of the tax clearly suggests. For the taxation of unearned increment plainly ought to tax the ownership of ground rent and house property on account of the monopolistic tendency of this constantly to increase in value in the course of time, independently of action on the part of the owners. The apparently novel result follows on the proposal to tax the increment in value of *all kinds* of property, that unearned increment will not be specially burdened. As to the source—whether earned or unearned—nothing is asked. For this tax it is, in fact, quite a different distinction that has to be decided, namely, the question whether an increase in value has arisen or not in the course of a short period of three years. This fact is the criterion. Hence a large property remains free if it has not increased in value during the last three years. Therefore it is for the old landed proprietors rather a freeing from taxation than an imposition. This is, at all events, the case when the method of valuation is such that it is impossible to follow movements in the market price.

However, in spite of this tendency of the new tax, the Conservative party in the Reichstag, in spite of its agrarian character, has not allowed itself to give a verdict in favour of the tax. The party has rather remained in opposition, because it did not wish that either a property tax, even in so topsy-turvy a form, or an inheritance duty for lineal heirs, should pertain to the Empire, in spite of the definite limitations which are contained in the new measures.

The rest time will show.

UNIVERSITY OF GÖTTINGEN.

GUSTAV COHN.

ENGLISH TOWN DEVELOPMENT IN THE NINETEENTH CENTURY.¹

IN the course of the last century the main social problem changed from a rural problem to a town problem. This was certainly true of the Poor Law. The problem of the 1834 Commissioners was the rehabilitation of the rural labour. That was successfully tackled, but meanwhile another problem was being developed—how to build up town life on a sound basis. The recent Poor Law Commissioners in the Majority Report tell a story of pauperism steadily diminishing from 1834 onwards, both in town and country, until nearly the close of the century, when there appears an increase in adult pauperism, both male and female, in London and the urban areas. This is attributed to “moral causes,” or “inducements to excess of some kind” to be found in industrial towns, “especially among the unskilled classes.” They consider that great self-restraint and steadfastness is necessary to an industrial life in the large centres of population, and they express the hope that these qualities may be acquired by a larger number of the unskilled class, as they have been acquired by the greater part of those engaged in industry. Before the Poor Law Report appeared, the present writer had, in a study of ²three Birmingham Relief Funds stretching over a period of twenty years, noticed a double tendency in the industrial life of Birmingham—on the one hand, a marked increase of providence and independence amongst the skilled artisans and respectable workmen generally; while, on the other hand, many unskilled labourers and the less respectable workmen, whether skilled or unskilled, appeared less provident and less independent than twenty years previously. The question that has presented itself is this: Is there anything in the history of the development of town life which would lead us to expect this dual movement—amongst one section of the working classes a clearly defined material and spiritual progress—amongst another section stagna-

¹ A paper read before Section F of the British Association, 1913.

² *ECONOMIC JOURNAL*, December, 1905.

tion and possibly active degeneration? This lack of homogeneity amongst the working classes appears to be of recent growth. An acute observer like Arnold Toynbee treats working-class progress as one and undivided, and writing, as he did, in 1880, was most probably right. If we go back a hundred years we find deplorable conditions in our great industrial towns, but conditions which were largely common to all classes. For instance, smallpox and typhus claimed their victims in all ranks, and a bathroom was an unknown luxury in any house. Business and professional men lived in the centre of the town, and had to go through the poorer quarters to go into the country, so that in a growing town the middle-class district was at a growing disadvantage. The middle classes met this by migrating to a west end. The physical separation of the middle class from the working class had come about before Arnold Toynbee's time, and he was the pioneer of a counter movement which produced "settlements." What this paper is chiefly concerned with is a much later class separation, which has received much less attention, namely, a separation between the upper and lower sections of the working classes themselves. Though this separation is quite recent it cannot be explained without a consideration of the circumstances in which our modern towns developed.

The amount of information which might be got together on modern town-life is prodigious, but only a few samples can be taken. To a considerable extent attention must be confined to sanitary conditions, though definite information is available and will be utilised as to one aspect of the moral conditions of town life. Experience shows, too, that physical and moral degeneration exist side by side, so that death-rates may be regarded as an index to moral as well as physical conditions.

At the beginning of the nineteenth century sanitation was, in general, mediæval. Let us assume that for small towns this meant no very grave danger, but that there would be a decided detriment to health in a town of 50,000 inhabitants, and that in a town of 200,000 inhabitants (covering probably the area of a circle with a two-mile diameter) the risk to health would be very grave. At this time London had practically a million inhabitants, Liverpool 78,000, Manchester 70,000, Bristol and Clifton 67,000, Birmingham 61,000, Sheffield and Leeds very little over 30,000, and Leicester only 17,000. These mediæval arrangements had in certain towns been slightly modified by Private Acts of Parliament conferring some very elementary powers for sanitation and police on specially appointed commissioners. It is not to be

assumed that these powers were either widely or efficiently exercised. For instance, in 1838, immediately before Birmingham was incorporated, it had nineteen constables; a number raised on incorporation to 336. In 1848 the surveyor for Duddeston and Nicholls had a salary of £30 per annum, and was apparently not certain whether the contents of drains would run up or down a slope.

For the sanitary condition of provincial towns at the beginning of the nineteenth century the only source of reliable information is these Private Acts. It is no use searching the town chronicles, as their authors do not seem to have thought about the matter at all. Bristol had obtained Acts of Parliament in the reigns of William III., George II., and George III., regulating the navigation of its river, providing for the cleansing of footpaths, establishing a night watch, &c., and at the date mentioned was under an Act of 1766. In 1806 power was obtained to have street lamps, to make sewers, and to pave streets. In 1819 gas-lighting was introduced. The Act of 1806 gave an unlimited rating power for the purpose of carrying out its objects, and the rate was the same for all occupiers.

Norwich up to 1806 had only a power to light streets, but in that year obtained power to pave streets, make sewers and cess-pools, place lamps in the streets, have watchmen, cleanse the surface of the streets, and deal with projecting houses. Its improvement rate was limited to 4s. in the £, on half the annual rent, but if the poor-rate was above 5s. 6d. in the £ (and the possibility of such a poor-rate seems positively appalling to us, and throws a vivid light on the poverty of that time) then the improvement rate was not to exceed 3s. in the £. Other towns which obtained Acts in 1806 for lighting, watching, paving, and cleansing purposes, or some of them, were Lynn, Exeter, Boston, Lichfield, and Lewes. Exeter had had power to light its streets as early as 1760.

Rotherham, which is, of course, a far older town than its near neighbour, Sheffield, had, as early as 1801, obtained an Act to deal with its market place, and for cleansing and lighting purposes, but its rating powers were limited to 1s. in the £.

Leeds obtained its first Act in 28 Geo. 2, and obtained another Act in 1790 on familiar lines, but distinguished by powers for the provision of a water supply. In 1809 the area over which the Commissioners had jurisdiction was enlarged, and the Commissioners were specifically empowered to have offensive middens, &c., removed from private premises.

In the same year Swansea obtained a rather drastic Act for those times. The removal of nuisances comprised objectionable filth, ashes, cinders, and rubbish. New buildings were to be perpendicular, and not overhanging, and to be set back to a definite building line, and were not to be thatched. Slaughter-houses were to be regulated. Rates were, however, limited to 1s. in the £.

Birmingham's earliest Act was obtained in 1769. In 1801 the Commissioners obtained a much-needed power of street-widening. A differential rating power was sanctioned. By a further Act of 1812 lamps were to be set up, spouts and gutters were to be carried into the culverts of the roadway, and no new buildings were to be thatched. The duty of sweeping and cleansing footways was put on the inhabitants, who might, however, compound for it. Steam engines (*mirabile dictu*) were to consume their own smoke. There were to be watchmen and night constables. New streets were to be 14 yards wide. The Commissioners were empowered to purchase the markets. The rates were fixed at 9d., 1s., and 1s. 6d. in the £, according to the size of house.

• Manchester affords a good instance of the chaotic absence of government in a non-corporate town at this period. The parish of Manchester was fifty-two miles in circumference, had a population of 140,000 inhabitants, and consisted of twenty-nine separate townships. The earliest improvement Act which the writer has been able to find is as late as 1826, and relates only to one township (Ardwick).

From this brief review of Private Bill legislation we may get a general idea of the position of English towns in the first thirty years or so of last century as regards building and sanitation. The effects need not surprise us. Everywhere the diseases of dirt still flourished, though the beginnings of sanitation brought about some little improvement. Smallpox was, of course, still the permanent scourge of the country, though the proportion of deaths due to it was steadily falling. In the three decades at the end of the eighteenth century the proportion of smallpox deaths per 1,000 deaths had been 102, 88, 92, while for the first three decades of the nineteenth century the proportion had fallen to 73, 43, 35. Our modern system of vaccination was not introduced till 1840. Typhus and gaol fever were also of frequent occurrence. In spite of John Howard's agitation the state of English prisons was almost as bad as ever, and though Gaol Acts were passed in 1823-4, their provisions were evaded or ignored.

Cholera was an epidemic visitor. Side by side with this was the fact that industry was practically without regulation. The Health and Morals of Apprentices Act (1802) was a very ineffective piece of legislation, and the Factory Act of 1819 only applied to cotton mills. Elementary education was represented by a few Lancastrian schools, and rather more National schools. Popular amusements were becoming somewhat less gross, and the Justices had done a good deal in the way of discouraging cock-fighting and bull-baiting, and the licentiousness which accompanied pleasure fairs. The attitude of the Justices towards the drink traffic is most important.

Mr. Sidney Webb, in his *English Local Government* (The Parish and the County, p. 585-8), has told the story of the effort made by the licensing justices between 1787 and 1815 to control the drink traffic, "with results on the conduct and character of the people which, as we think, every student of the period would nowadays declare to be almost wholly good." In the decades that followed the peace of 1815 there gradually arose an overwhelming reaction against this licensing policy, and the dominant idea became that of free trade in ale and alehouses. This brought no legislative change till 1830, but the change when it did come was so important that it makes a convenient dividing point in our story—especially as from about the same date we get the stream of legislation which followed the Reform Act of 1832.

During this part of the century—say up to 1831—the town population had been growing rapidly. The whole population of the country had increased by 60 per cent., but there were not many large towns which had not increased by at least 100 per cent. This was certainly true of Liverpool, Manchester, Leeds, Sheffield, Birmingham, and Leicester. In Bristol the increase was about 50 per cent., but in Clifton it was nearly 100 per cent. No English provincial town had reached the 200,000 line. The rich were still living in the centre of the towns and the poor in the suburbs. In Birmingham the proximity of the Edgbaston estate, and the decision of its owner to have it laid out solely as a residential estate, presented an unusual opportunity for the segregation of the middle classes. An inspection of several of the old estate maps shows that in 1809 the estate was wholly undeveloped, and that in 1825 development on the side nearest the town had just started. On the other hand, the main residential street in the centre of the city, whose buildings still remain, is named after the Battle of Waterloo, and was apparently built in the decade following that battle. Rich and poor

alike suffered from the absence of sanitation, and it is doubtful if there were any glaring differences in death-rates. There was little or no sign of our modern town problems. Not much has come down to us from that period, for the buildings have mostly been pulled down to make way for the railway stations, municipal buildings, and wide thoroughfares of the modern central area.

When we come to the next period of the nineteenth century, roughly from 1830 to 1870, there is a very different story to tell. Let us take housing; there are said to be from 40,000 to 50,000 back-to-back houses to-day in Birmingham, the homes of at least 200,000 people; these were practically all built in this period. Back-to-back houses are the despair of medical officers, and recent official figures for certain Yorkshire towns show a mortality greater by 15 per cent. to 20 per cent. in them than in through houses comparable with them in rent and character of occupants (Cd. 5,314).

If we turn to licensing administration we find that in the centre of Birmingham—taking a mile radius with a population of not less than 200,000—there was, a very few years ago, roughly one licensed house for every two acres, or, say, every fifty families. A very large proportion of these licenses came into being in this 1830-1870 period. What is true in this respect of Birmingham is true of all our largest provincial cities. Again, since 1837 reliable statistics of births and deaths are available. The outstanding fact which these statistics show is that the death-rate for the whole country, including the country districts, was as high in the 1860-1870 period as it was from 1838-1840. As we go round the slums of these big provincial cities we are faced everywhere with the evil legacies of this disastrous period of our social history.

The main mistakes of the period were its housing policy, or, rather, the absence of any housing policy, and its licensing policy. The housing problem was, of course, one of immense difficulty. The increase in the population of England and Wales between 1831 and 1851 was over four millions, and between 1851 and 1871 nearly five millions. The steady flow into the towns had already begun, and by 1851 half of the population of the country was living in "urban districts." By 1881 this had been raised to over two-thirds.

By 1851 the following municipalities had passed the 200,000 line, viz., Liverpool with 376,000 inhabitants, Manchester 316,000, and Birmingham 233,000. With between 200,000 and 100,000 inhabitants came Leeds with 172,000 inhabitants, Bristol 137,000,

Sheffield 135,000, and Bradford 104,000. The rate of growth of towns between 1851 and 1871 was not less rapid than in the preceding twenty years. How were these crowds housed? Everything was sacrificed to cheapness, and cheapness was attained not merely by excluding all conveniences such as the laying on of water, but by restricting the ground space. The system of economising space by building cottages in courts must be an exceedingly old one, and an old city like Norwich is full of them. The new manufacturing districts seem to have the glory of inventing an added horror by building in these courts three-storied back-to-back houses. It is exceedingly difficult to get exact information as to when different types of houses were built, but judging from the geographical position of this type of house, both in Sheffield and Birmingham, its adoption may be put somewhere near 1830. In Birmingham the building of these houses seems to have stopped just before 1870, on the passing of a building bye-law which enacted that there must be a space behind every new house. Their erection has recently been made illegal by statute.

As far as water supply and drainage were concerned, these closely-built and stuffy houses were no better off than the houses in a small village. In 1848 an inspector visited Birmingham to make an official inquiry and noted the absence of a general system of sewerage, the imperfect condition of streets and roads, the confined courts, the open middens and cesspools, stagnant ditches, and insufficient water supply. It is interesting to note what escaped his attention. We know from another source that at this date there were pig-styes in the neighbourhood of the Town Hall, and therefore presumably all over the town. The pig-styes and the back-to-back houses he seems to have taken for granted. Drainage, water supply, and middens have been attended to, but the back-to-back houses still remain, and a beginning only has been made in turning closed courts into open terraces. Here, therefore, we have a direct legacy from the past.

Birmingham does not afford us a very good opportunity of showing in figures the abiding effects of this period, but, fortunately, through the kindness of the Medical Officer of Health for Manchester, some very striking and instructive figures for Manchester can be given.

Manchester Township represents the oldest and most central of the twenty-two townships which made up Manchester Parish. It was completely built over by the year 1851, and its population was then 187,000. Since that time it has, by a process which is

taking place in the centre of all large towns, steadily diminished in population, so that in 1901 its population had fallen to 182,000. The death-rate in Manchester Township has been as follows :—

1838-1840	1841-1850	1851-1860	1891-1900
35.8	33.3	31.6	29.6

Now Manchester has in many matters of health taken the lead, and enormous strides in general sanitation have been made in the forty years between 1860 and 1900; and though, of course, we must set against this the fact of the very large population which has gathered round old Manchester, yet the fact remains that the death-rate for 1891-1900 is only two points better than that for 1851-60. In a more modernly-built town like Leicester, the death-rate of the whole town in 1851-60 was 25.26, while in 1891-1900 it was 17.9. The reduction in Manchester Township in forty years is about 6 per cent., and in Leicester 30 per cent.

We may reinforce these figures with those for the whole country. In the period 1841-50 the death-rate was 22.4, while for the period 1891-1900 it was 18.2. Manchester Township has therefore seriously lagged behind the general rate of improvement, and is relatively a more unhealthy neighbourhood than it was forty years ago. Very probably this is true of the central areas of all our very large provincial cities, where these central areas were covered with small houses prior to 1870.

Now let us turn to licensing administration. The feeling against the restrictive policy of the Justices to which reference has already been made resulted in the legislature passing an Act in 1830 under which free trade in beer (not wine or spirits) was established. Any householder on executing a bond and paying a licence duty of £2 2s. was entitled to retail beer and cider on or off his premises without a Justice's licence. The result of the Act was an enormous increase in the consumption of beer, and no diminution in that of spirits. At once 30,000 beer-houses sprang into existence. In spite of somewhat more stringent regulations these continued to increase, till in 1869 they numbered nearly 50,000. At the same time, the fully-licensed houses, which in 1828 numbered 50,000, had by 1872 reached 70,000. The beerhouses with an on-licence were brought under the Justices' discretion in 1869, but the then existing beerhouses (since known as *ante* 1869 beerhouses) were put in a favoured position by provisions which prevented the Justices from refusing a renewal of an *ante* 1869 beerhouse unless the house had been misconducted or for other similar reasons. Up to this year (1869) our big cities were flooded with beerhouses. We have it on the

authority of the inspector to whose report reference has already been made that in Birmingham in 1848 there were 1,363 public-houses. This gives one to every 166 inhabitants, or every thirty-three families. Until the passing of Mr. Balfour's Act in 1903 very little was done to get rid of these *ante* 1869 beerhouses, and most of them survive to-day. A few years ago the writer went into this question in some detail as regards Birmingham, and the following figures will give some idea of how this state of affairs has survived in the older wards:—

St. Mary's had one publichouse to every	177 inhabitants.	
St. George's one to every	239	„
St. Bartholomew's one to every	275	„
St. Thomas one to every	287	„
St. Martin's one to every	285	„
Deritend one to every	316	„

While Saltley,* an entirely working-class suburb, which has for the most part been built since 1870, has only one publichouse to every 1,822 inhabitants. The excessive number of publichouses in the older parts of our large cities is therefore another direct legacy of this 1830-1870 period.

We must not assume that during this period nothing was being done to promote the healthy development of our big cities. The period of improvement by Private Act of Parliament lasted till about the 'fifties, and was much facilitated by a series of general Acts, most of them passed in 1846-1848, which were based on the experience gained by the experiments in the big cities. These general Acts were not compulsory, but could be adopted in whole or in part.

The more important were the Town Improvement Clauses Act, 1847; the Markets and Fairs Clauses Act; the Town Police Clauses Act, 1847; the Public Baths and Washhouses Act, 1846; and the Public Health Act, 1818.

Further efforts at general sanitary legislation were made in the Nuisances Removal Acts of 1853, 1863, and 1866, and in Sanitary Acts of 1866, 1868, and 1870, but the first compulsory Acts covering the whole country were the Public Health Acts of 1872 and 1875, the latter of which is still in force. This 1830-1870 period was not without efforts to improve town life generally, and during its latter half the first public parks and libraries were opened. It is from the passing of the Acts of 1872 and 1875 that a new chapter of town life in England begins.

The general impression made upon the writer is that of the manufacture of enormous quantities of new wine, and the pouring of it into bottles for the most part entirely old. Since 1875 most of the new wine has gone into new bottles, with much more satisfactory results. The Reform Act of 1867, the Licensing Acts of 1870 and 1872, the Education Act of 1870, and the Public Health Acts of 1872 and 1875, and the Factory Acts which were consolidated in 1878, constitute a very remarkable group of enactments, and have undoubtedly provided a means of social salvation for the newer parts of our great industrial centres. No really new departure was initiated during the succeeding generation, and we must not let such Acts as Mr. Balfour's Licensing Act, the Workmen's Compensation Act, the Town Planning Act, and the National Insurance Act, which give a distinction to our own immediate times, blind us to the enormous importance of these earlier steps.

Before we proceed to examine briefly the very satisfactory results of the legislation of the 1870 decade—at least in those districts where there has been sufficient public spirit to take advantage of it—let us notice its comparative, even its almost absolute, failure in dealing with accomplished facts. It appears that in the very large industrial centres, and to a smaller extent in most industrial centres, a considerable proportion of the population is living under physical and moral conditions which are almost as bad as those which obtained fifty years ago, and that falling death-rates, and evidences of moral and educational progress, are quite compatible with this stationary condition of the old centres. The problem of dealing with these central slums has become more difficult with the lapse of time, and any solution vastly more expensive; but it is crying Peace where there is no Peace if the social legislation of last century is pronounced a success, when it has only been a very partial success. Here we get the basis of the cleavage in the ranks of the working classes. That basis is something more than a difference between skilled and unskilled. It is true that the unskilled labourer wants a cheaper house, and therefore gravitates to the old centres, but a large number of skilled artisans, and this is especially true in Birmingham, live in the central districts and conform to the central type. In spite of larger earnings, the families are brought up on a meagre housekeeping allowance, and exposed to all the lowering influences, physical and moral, of these central districts. The comparative cheapness of the houses, their proximity to works and goods yards, and to publichouses and picture palaces,

make them veritable traps for the easy-going and a boon to the vicious.

For the general improvement in sanitation which began in 1875 reference can be made to Chart I. in the Blue Book on "Public Health and Social Conditions" (Cd. 4,671, published in 1909).

It is perhaps more instructive, and certainly more interesting, to leave general statistics and to come to concrete examples. An attempt will be made to measure the success of this social legislation in three different places, typical of three sets of conditions.

Birmingham will serve as the first instance. Here we have a large town full, prior to 1875, of the gravest deficiencies, but with public-spirited citizens anxious to make the best of the chances given them, by the legislation then just passed, and taking full advantage of it in its new industrial suburbs. As a result the contrast between the old centre and the new suburbs is very grave. Leicester represents another story. Here the burden of the past was much less heavy, and as the problem was attacked with much spirit, we find that remarkable success has been attained even in the older districts. Finally, we may take Middlesbrough, which is much the newest-built of the three towns, but which, for reasons which are easy to understand, has failed to develop on healthy lines.

To begin with Birmingham. In 1901 its population was 522,000, and 140,000 people were living in wards with a death-rate over 20 per 1,000; nearly half of this 140,000 were in wards with a death-rate of over 24 per 1,000. In 1912, the figures for which have just been published, St. Mary's Ward of the enlarged city, with 32,000 inhabitants, had a death-rate of 26.0; Duddeston and Nechells (41,000) of 22.0; and St. Bartholomew's (37,000) of 20.2.

To contrast with this, in 1901 the newer districts of Saltley, Balsall Heath, and Bordesley—all working-class suburbs—had a population of 135,000 and a death-rate under 15. In 1912 the death-rate had fallen to about 13. Districts still further out, and not then within the city, such as King's Norton and Erdington, had a death-rate under 10. For the ten years 1895-1904 we find, taking twenty of the largest towns in England, that the worst positions are taken by Liverpool, Manchester, Salford, Newcastle, Sunderland, Oldham, and Birmingham; so that Birmingham, though typical of these old industrial centres, is by no means the worst of its type.

If space permitted, an equally striking contrast in independence and moral standing could be shown between the central core, and the working-class suburbs in Birmingham. In the latter there would be seen elementary schools of the best type, with good playgrounds and well-fed scholars. Of these scholars a much greater proportion would be found passing into the secondary schools with which Birmingham is so well provided. We should find well-patronised free libraries and swimming baths. The churches and chapels would be seen working with a success altogether beyond what attends efforts equally strenuous in less fortunate neighbourhoods. The life of these working-class suburbs is open to many criticisms, as, indeed, is the average mode of life in suburbs in general, but in its broad outlines it attains a reasonable standard of physical, intellectual, and moral well-being. This is not true of the central districts.

Now let us turn to Leicester. At the beginning of last century Leicester had the modest population of 17,000; but increasing its population by about one-third in each decade, in forty years it had trebled its population, and in 1841 it was a town of just over 50,000 inhabitants. By 1871 it had nearly doubled its population again, and must have passed the 100,000 line about 1873 or 1874, when the new legislation was beginning to make its influence felt. By 1901 its population had once more doubled, the figures for that date being 212,000.

In merit as a healthy large town Leicester is almost uniformly second in a list of thirty-seven towns, and the one place which beats it is Croydon, which is more of the nature of a London suburb than a self-contained town. The only industrial town which is in a level with it is Coventry, which is very much smaller. Coventry is, of course, a very old town, but it is only since 1901 that it has become a modern industrial centre of real importance. Cardiff and Portsmouth, which are comparable to it in size, run it fairly near.

Leicester did not start with a particularly good death-rate, as during the thirty years from 1845 to 1875 its average death-rate was well over 25 per 1,000, and in nine of those years was over 27. Since 1875 its death-rate has never reached 25 per 1,000, and since 1882 it has only twice been over 20, and the average of the last five years is well under 14 per 1,000. About 50,000 of the inhabitants in the centre of the town live under conditions considerably, but not alarmingly, worse than the average: Its two worst wards, with a population of about 25,000, have a death-rate of just over 18 per 1,000; while two others, with about the

same population, have a death-rate of 15½. All this is due to an energetic and enlightened administration in sanitary matters acting under favourable historical conditions. Let us take one instance. The introduction of the water-carriage of refuse is always a considerable expense in money, and a great saving in life and health. In 1896 Leicester obtained compulsory powers for converting existing arrangements, with authority to contribute towards the expense. As a result, at a cost of £14,500, over 6,000 houses were provided with the best sanitary arrangements, and apparently in Leicester every house is now properly furnished in this respect.

Middlesbrough, our last example, is an example of how opportunities may be neglected, and an easy task turned into a difficult one. The town was not incorporated till 1853, and its population in 1901 was only 91,000. The really old part of the town has about 15,000 inhabitants, and the death-rate for that district for the ten years 1901-1910 was over 28 per 1,000. The town as a whole falls into two districts, east and west. The west, with a population of 58,000, has a death-rate of 19·7. Part of it has been built on a marsh. The east side, with a population of 34,000, has a death-rate of over 16. Not 10 per cent. of the houses are properly furnished as regards the water-carriage of refuse, and 7 per cent. still have the most primitive arrangements.

This comparison suggests that English towns have still three options: (a) to leave the pre-1872 portions of the town very much as they were at that date, while utilising legislation to the full to make its newer suburbs healthy and moral; (b) to spend money freely on the older districts as well as to build the newer districts on sound lines; and (c) to do the minimum, and it is not a very high one, allowed by the law in both old and new countries.

It would be interesting to discuss how far a case is made out for special legislation for the *pre-1872* districts, dealing either with sanitation or licensing or both. Part I. of the Housing Act of 1890 was no doubt intended to apply to these districts, but its application is optional, and the option is now seldom exercised. The excessive sickness section of the Insurance Act may possibly be used as an inducement to improve conditions. As regards temptations to drink, Mr. Balfour's Act is being used to diminish these in the central districts, but progress is painfully slow.

A further question is whether the time has not come to make the standard of sanitary administration observed by the best municipalities compulsory on all urban areas. There is a considerable risk that the mistakes of Middlesbrough may be

repeated. During the decade 1901-1911 the growth of urban population showed decided signs of shifting. The greatest rates of increase were in the fifty towns having a population between 30,000 and 40,000, and next came the thirty-seven towns having a population between 50,000 and 75,000. It is in towns of this size that the temptation comes most strongly to repeat the mistakes of Middlesbrough.

F. TILLYARD

REVIEWS

Indian Currency and Finance. By JOHN MAYNARD KEYNES, Fellow of King's College, Cambridge. (London : Macmillan and Co. 1913. Pp. 263.)

THE purpose of this work is to give a critical exposition of the Indian currency and banking system. The time of its appearance may have been determined by the very energetic but ill-considered attack on the Indian monetary administration made last autumn, but the phrasing of some passages rather suggests that they were originally written as a memorandum or report for official use. In any case, the book is clearly the result of prolonged and detailed study by one who has had access to the best sources of information.

Mr. Keynes has undertaken a task of no ordinary difficulty. What he says in speaking of the Indian reserves is applicable to the whole Indian system :—"The outcome partly of historical origins, it has no logical basis, is exceedingly difficult to understand, and has often led in consequence to a good deal of misunderstanding" (p. 172); and again, "the objects to be attained are simple, but the methods of the Government are, largely for historical reasons, exceedingly complicated" (p. 124). It may be said at once that Mr. Keynes has unravelled the complication with perfect mastery; that he has given a thoroughly lucid account of the whole question, or rather series of questions, at issue; and that whether or not his judgments on these questions are accepted, as I think they must be, the book itself is, and is likely long to remain, the standard work on its subject. It is, so far as I know, the first complete account of the Indian banking and currency system which has yet appeared; it contrives, while explaining all the important details of the system, to make its essential factors and principles stand out in clear relief; the handling throughout shows remarkable ability, and the style is beyond praise.

The exposition is so thoroughly logical and consecutive that

the critic cannot do better than follow the author's order in dealing with the various topics treated.

In chapter i. Mr. Keynes gives a very terse sketch of the existing currency position in India, including a useful list of the legislative or administrative Acts, never systematically set forth by authority, on which the system rests. It leaves the present position perfectly clear. But incidentally, in explaining how the present position came about, Mr. Keynes is led to refer to the "broad historical facts." On these he says that he does not intend to spend time; but he has allowed himself to make some very disputable statements. When a book is so thoroughly sound in its main contentions, it may seem ungenerous to take exception to *obiter dicta* on matters lying outside its selected province; but one or two passages seem to call for remark. Mr. Keynes represents "the silver interests"—by which phrase I suppose he denotes those who favoured the re-monetisation of silver, though it is not usual to speak of their opponents as "the gold interests"—as holding that "a depreciating currency is advantageous to a country's foreign trade." This is hardly the kind of view which *a priori* one would expect to be held by the many able Governors of the Bank of England who were active leaders in the movement, or by Sir David Barbour, and many others who might be named. It would better represent the misunderstanding of bi-metallist views common on the part of the "sound currency" men who opposed them, and whose principles Mr. Keynes elsewhere rates at their proper value. The bi-metallist position can be briefly stated. They conceived the facts to be broadly that since 1873 gold had steadily appreciated, while the Indian currency down to 1888 had fairly maintained its value, slightly depreciating from 1888 to 1893. Their essential principle was that the persistent appreciation of a monetary standard was injurious to the country concerned, and should be checked; everything else logically followed from this, though in point of fact it was the break in Eastern exchange which first arrested the attention of the business world. As far as foreign trade was concerned, their position was that a country whose currency was stable, like India, would have an advantage in dealing with a country like England, whose currency was appreciating. Their arguments always implied that the rupee practically maintained its purchasing power. If the rupee had really been depreciating, the argument would have been deprived of its main premiss. They also held that for choice a depreciating standard is more stimulating to national production than one, which appreciates.

But this contention related to the national output, and had no special application to the movement of foreign trade. Now, their cardinal doctrine that a continued fall of prices is a drag on progress may be, and is, disputed. But when, after 1896, the bi-metallist aim was realised in a quite unexpected way, by the nearly fivefold increase in the production of gold, there were few of their opponents who did not welcome the even excessive reaction in the price movement. *Post hoc, non propter hoc*. But bi-metallists may, at any rate, congratulate themselves that the price-reaction has been accompanied by just the remarkable expansion of trade, and especially of trade with the undeveloped and borrowing countries, which they had expected and predicted in that event.

Chapter ii. deals with the gold exchange standard system. It is one of the ablest chapters in the book, and I shall be surprised if it does not have a marked effect on currency views in this country. Mr. Keynes contrives in twenty-two pages to make a survey of the world's currency systems, showing an intimate knowledge of their really vital or pivotal features; and yet the exposition is perfectly lucid, and the broad results stand out unmistakably. There is no doubt that to the ordinary Englishman, whose ideas on currency matters are not appreciably advanced beyond those of Lord Liverpool, the Indian currency system appears artificial and exceptional. Mr. Keynes easily shows that the English system, or rather the English theory, is the exception; and that the world to-day, England included, is really working more or less on the Indian principle. What is this principle? It is, in Mr. Keynes's words, "the use of a cheap local currency, artificially maintained at par with the international currency or standard of value" (p. 36). As the most usual method of maintaining parity is by selling gold exchange on international banking centres, this system is usually known as the gold exchange standard. Mr. Conant and other writers speak as if this gold exchange system were ideal; and Mr. Keynes, "speaking as a theorist," holds that "it contains one essential element in the ideal system of the future" (*ibid.*).

But the system is, of course, exposed to two great dangers. If the local currency is too "cheap," it invites illicit issue; and this, if extensive, will destroy the parity. On the other hand, if the local currency is issued with a content-value near to its face or exchange value, then a slight rise in the value of the metal will leave the seigniorage on the coin negative, and the currency will instantly disappear in the melting pot. This latter difficulty

would, of course, not occur if the local currency were paper. But as things are, the Indian Government has found illicit coinage rampant; while in Mexico, the Philippines, and the Straits Settlements, a sudden rise in silver caused the disappearance of whole currencies. It follows that all Governments adopting this system on a silver currency basis must be greatly concerned in steadying the price of silver. Yet, curiously enough, as was pointed out by the American Commission on International Exchange, the Indian Government, by its extremely irregular appearances in the silver market, is the principal cause of the fluctuations in the value of that metal. The system has another serious consequence, predicted by bi-metallists before its introduction into India. It tends to replace silver by gold in the native hoards. Just as a Frenchman buys and sells small parcels of Rentes instead of opening a banking account, so the Indian uses ornaments. When the rupee contained its face value of silver, silver might be used for this purpose. Now that the rupee circulates at an artificially appreciated value, there would be a heavy loss on turning silver ornaments into rupees. He therefore now uses either gold ornaments or sovereigns; and this is the main cause of the increased absorption of gold by India. These are points which Mr. Keynes may have omitted for purposes of compression; but they deserve notice in some future edition.

The interesting sketch of the origin of the exchange system (p. 31) calls for a word. Mr. Keynes finds this origin, so far as practice is concerned, in the method adopted during the second half of the eighteenth century for regulating the exchange between London and Edinburgh. It was also shown, in the celebrated Report of 1804 on Irish Exchange, that the same system was in use in Ireland. But it was, in fact, the general system on which English country banking was carried on in those times. When the country banker discounted bills for his clients, "cash" meant either the banker's own notes or a draft on his London agent; and the draft was preferred in the larger operations, and came to be regarded, like a credit with the Bank to-day, as the highest form of "cash." We might, indeed, go back to the Middle Age, and find in the European national currencies, all silver kept at parity with the gold besants of the Byzantine Empire, an anticipation on a larger scale of the system which appears to many as the latest novelty.

As regards the recent revival of the system, it was undoubtedly the example of Holland, both at home and in Java, which established the practice. (Why, by the way, does Mr.

Keynes describe the Dutch system as "crude" (p. 31)? The holding of foreign bills would seem to be as effective as the keeping of foreign credits, especially as these bills were largely on London.) Among the writers who have contributed to the modern vogue of the system, of whom Col. J. T. Smith was one of the earliest and ablest, Mr. Lindsay deserves the place of honour, and it is satisfactory to find him at last coming to his own in this book. But the series of able papers written by Dr. Van den Berg, some of them for the information of the Indian Government, also deserve to be put on record; and with the later developments of the system, the name of Mr. Conant will always be associated. Mr. Keynes claims for India that it was the first country to adopt the system in its complete form. But this seems to many persons, and especially to foreign critics, exactly what the Indian Government has not done. Neither the upper nor the lower limits of parity are secured by a definite systematic Act. Fifteen rupees are obtainable for a sovereign in India (and generally in London) only "so long as a Notification of 1893 is not withdrawn" (p. 6). Mr. Keynes himself notes (p. 7) that the Government have given no binding undertaking to sell gold exchange at a fixed price. This is the keystone of the whole system; to leave it as a vague understanding is to invite distrust.

In chapter iii. the Indian paper currency is considered. Here, again, Mr. Keynes goes straight to the root of the matter. The characteristic advantage of paper as contrasted with metallic currency is that under a suitable system of issue the note may be used to give elasticity to the circulation, and thus to prevent stringency due to seasonal and other causes, a pressing need in India. Needless to say, the English note issue is absolutely deprived of this advantage by the Act of 1844, almost as absurd in this respect as the United States reserve law. "What would be thought," says Mr. Keynes, "in France or Germany, or in any other European country, if an expansion of the note issue could not be made against the discount of home bills, but only against a corresponding deposit in cash, cent. per cent.? Yet this is the position in India" (p. 180). And in England, it may be added, on whose unhappy model the Indian system has been planned. When, in 1902, Spain was proposing to introduce the English system of issue, M. Théry well said that but for our use of cheques the system would have been impossible in England, and that it was quite out of the question for any other country. Spain took M. Théry's advice; it is to be hoped that the Indian administration will weigh Mr. Keynes's suggestions. For India

the matter is of the first importance, for there is a very marked annual seasonal fluctuation in her discount rate, the minimum varying pretty regularly from about 3 per cent. in the slack to 8 or 9 per cent. in the busy season (*cf.* p. 243). This variation is largely due to the cost of sending money from London to India for short loan purposes, and therefore might be greatly reduced if Government were to fix exchange with London at 1s. 7d. But Mr. Keynes shows conclusively that there are serious objections to such a course, and that the natural remedy is to provide for proper elasticity in the paper currency. A minor defect in the Indian currency, noticed later (p. 95), is of importance because it checks the increased use of paper which is so much to be desired. There are not adequate facilities for the exchange of notes into coin. Thus in the Punjab, where the sovereign is displacing the note, the difficulty of cashing the note seems to be the principal reason. This provides another illustration of the widely observed fact that a note issue cannot be effectively circulated except by an institution engaged in ordinary banking business: one of many important arguments for a State Bank in India.

Chapter iv. deals with the proposal for a gold currency in India. This proposal, the special hobby of the Fowler Committee, whose report will not rank high with monetary experts, seems to have found favour with Lord Crewe and many high Indian officials, and is supported by many persons who imagine that it means the introduction into India of the English system. Is such a general use of gold as currency in India a thing to be desired? "My own answer to this question," says Mr. Keynes, "is unhesitatingly in the negative" (p. 89). Most of us will probably agree. He gives excellent reasons for his position. "A gold standard is the rule now in all parts of the world; but a gold currency is the exception." (How many English public men realise the distinction, or are aware of the fact?) "I think I am right in saying that Egypt is now the only country in the world in which actual gold coins are the principal medium of exchange." The gold exchange or gold parity system, as is obvious, admits of large economies: it was mainly on this ground that Ricardo advocated it. Mr. Keynes finds two further and forcible arguments against an increased use of gold in India. He shows clearly that it would tend to *weaken* the gold standard reserves; and, again, it would check the development of the paper currency, to which India must look for the elasticity of her system. There is another capital advantage arising out of

the gold exchange system which Mr. Keynes does not mention. It lends itself, as no other does, to the scientific regulation of the standard, if this is ever to be achieved. Regulation by seigniorage on face-value-content coins seems to present grave practical difficulties. Mr. Keynes seems to look forward to some scientific correction of the standard of value. He observes (p. 101), "It is not likely that we shall leave permanently the most intimate adjustments of our economic organism at the mercy of a lucky prospector, a new chemical process, or a change of ideas in Asia." More than a quarter of a century ago, when the present writer used very similar words, he was roundly abused. But a good deal of water has gone through the mill since then. Mr. Keynes' dictum has aroused no protest, so far as I know, and will be cordially endorsed by a large body of opinion.

The case thus made out against encouraging the use of gold currency in India seems to me exceedingly strong, and will take a good deal of answering. Generally, too, one would entirely agree that convertibility into metal, not metallic content, is the best principle for national currencies, *if we are to confine ourselves strictly to the currency point of view*. Where, however, as in England, the constitution of the banking system, and the careless habit of the people, are such that it is impossible to secure the provision of adequate banking reserves, I am inclined to agree with those authorities who oppose the further supersession of gold in currency, on the ground that the coin thus used might be called in, in exchange for notes, at a time of serious emergency, when it would prove an invaluable first line of defence. But this consideration does not apply to the case of India; because, as Mr. Keynes rightly insists, it is just at such a time of crisis that the Indian would hug his gold. It may be assumed, then, that the balance of argument, on economic grounds, is against the increased currency of gold in India. But there are those who, while not concerned to deny this, hold that political considerations make it desirable. High authorities, both Anglo-Indian and Indian, urge that a strong preference exists for a gold currency, and that even if this has merely a sentimental basis it should be considered, and may justify the expense entailed. This is eminently a question for the Commissioner, but so far as outsiders can form an opinion, the preference in question is confined to a relatively small class of persons. It can hardly be described as national, nor does there seem any sufficient reason for humouring it in face of the very substantial disadvantages which have been noticed.

There is even less reason for the proposal to establish a Mint for gold coin in India, and Mr. Keynes rightly opposes it. If it is desired to provide a market for gold, he would prefer that the Government should oblige themselves to purchase bars for currency as the Bank of England does under the well-known Clause 4 of Peel's Act : an interesting and useful suggestion. His concluding sentence is quite in Adam Smith's vein : "The establishment of a Mint, however, would flatter at small expense an ignorant vanity. The Government, by granting it in response to popular appeal (though I doubt whether, in fact, there is any such appeal), would have a pleasant feeling of being democratic on an occasion when to yield involves no more evil than any other expenditure on a piece of fairly cheap ostentation" (p. 87).

• The next chapter, on council bills and remittance, is a very clear statement of a perplexing subject, full of pitfalls. Mr. Keynes is specially concerned to show that it is a mistake to suppose that the Secretary of State's action in regard to the amount of council bills offered can in any important degree affect the volume of the rupee circulation (pp. 109-113). He also shows the uncertainty as to the precise gold points of exchange in India, arising from the fact that gold may come in from Australia or Egypt, as well as from London. The chapter concludes with an interesting balance of remittance for India, and an analysis of the Indian home charges, at present about nineteen millions sterling.

Chapter vi. (pp. 124-195), on the reserves and cash balances, is the longest and most elaborate in the book, and is full of interest from beginning to end. In it the whole reserve position in India is subjected to a most searching and able examination, in which account is taken of all probable demands upon the Government, whether for gold or rupees. In the course of this inquiry the complications of the various reserves are carefully explained : there is an excellent history of the critical events of 1908, when the Indian system was first seriously tested ; and an estimate is given of the amount of the rupee circulation. Mr. Keynes also raises the question whether the gold standard reserve is purely currency reserve or in part a banking reserve (pp. 157-166). He concludes, after a very interesting discussion, that in practice the Government will not be able to restrict its responsibility to the currency. Here, again, we have an argument for a State Bank, as Mr. Keynes notes in a later chapter (p. 236). The difficulty of treating currency questions without reference to banking conditions is similarly "illustrated in the

Nicaragua currency scheme recently framed by Messrs. Conant and Harrison, where it has been considered advisable to combine provision for seasonal elasticity with provisions for the maintenance of the gold exchange standard. Mr. Keynes is very good where he shows (on p. 176) that India can gain nothing, and may lose, by holding the gold standard reserve in India rather than in London. But he recognises "a powerful, natural, and yet unfounded prejudice" to the contrary; and finally concedes that "India must be allowed, I suppose, to hug her sterile favourite." The comparison Mr. Keynes draws between this Indian prejudice and the Continental policy of holding large gold reserves does not seem so happy. He can only see what he calls "the original sin of mercantilism" in the anxious care with which most European Governments accumulate and guard their gold reserves. But it is notorious that their action is determined by political more than by purely banking considerations. They always have in mind the emergencies connected with war, more particularly the probable withdrawals for hoarding, and the enormous expense of mobilising their huge armies, for which no adequate preparation is made here. They believe that at such times large cash reserves are indispensable, even to countries with the best credit. Thus, even as late as February, 1913, the German bankers put the amount still hoarded in consequence of the Balkan War crisis as nearly £25,000,000. Bismarck said, in 1871, that but for the war treasure, Germany would not have been able to gain the two days' start which prevented the invasion of the whole right bank of the Rhine; and Riesser estimates that altogether the German Treasury would require £122,500,000 for outlay during the first six weeks of war. Right or wrong, the opinions of the Continental Powers on this matter are based on the most thorough and up-to-date historical and statistical research. It would take a good many Budgets to convert them to the happy-go-lucky reserve policy which prevails here.

Summing up the results of this chapter, Mr. Keynes fixes the necessary currency reserve at about £40,000,000, apart from the various Government balances, and he thinks that this sum would also be sufficient to meet the adverse balance on all accounts "likely to emerge in a single year," perhaps even sufficient in the case of two successive bad years (p. 169). It is perhaps the first estimate which has taken account of *all* the possible liabilities of the Government, and the argument carries conviction throughout. It should be noted that in this chapter (*e.g.*, p. 140), as in

other places (e.g., p. 110), Mr. Keynes often uses "rupees" to mean currency notes as well as rupee coins.

Chapter vii. contains a concise but admirable account of the Indian banking system. Mr. Keynes admits his indebtedness, so far as the Presidency Banks are concerned, to Mr. Brunyate's Account, published in 1900; but he has used it to excellent purpose, and brought the figures up to date. The description of the special business done by the Exchange Banks shows his remarkable familiarity with actual business practice; and his analysis of their banking position is singularly clear and acute. The passage in which he shows that the strength of exchange partly depends on the policy adopted by these banks may be specially noted. The account of Indian joint-stock banking, too, is of great interest. Here our author finds much to criticise, and his strictures have received a striking justification by recent events. After analysing such returns as are available, he observes that, in his opinion, "these figures reveal an exceedingly serious state of affairs" (p. 224); and he says of the smaller banks that "it is hard to doubt that in the next bad times they will go down like ninepins." Within six months the forecast has been realised. His other criticisms in this chapter seem to deserve serious attention, especially what he says of the marked fall in the reserve ratio of the more solid banks, and of the growth of a kind of wild-cat banking, unknown anywhere else in the British Empire.

Finally, the chapter concludes with a statement of the arguments for and against a State Bank in India. One of the strongest is to be found in his last chapter, on the Indian discount rate, where he shows the wide annual fluctuation in the rate. It might, indeed, almost be said that most of the practical suggestions in the book point in that direction. But he is under no illusions as to the practical difficulties in the way, and is not sanguine that anything will be done in the matter while times are good. "We may have to wait," he concludes, "for the lessons of a severe crisis."

The main result of this remarkable inquiry may be summed up in two sentences. The Indian gold standard system is in principle sound, and in conformity with the general practice in almost all countries; while, on the other hand, the banking and note-issue systems are anomalous, and call for reform, especially on the points of elasticity and central control. India, in short, is diagnosed to be in very similar case to the United States. These conclusions seem amply made out, and, indeed, unassail-

able. At such a time as this, when the whole system of Indian finance is under examination, it is of the greatest importance that fundamental principles, of the kind here dealt with, should be established beyond dispute. This is exactly what Mr. Keynes' book has accomplished. It is a most timely achievement, a service of the highest practical importance.

If the book is regarded from the academic standpoint, it seems equally welcome. It is a notable departure from what has been called the fashionable style in recent English economics. Technical apparatus is kept in its place—behind the scenes; evidenced, but not advertised; as an architectural painter will use perspective without exp'ising his technique. The contrary habit is severely but justly criticised by Professor Nicholson in an article on the *Vagaries of Recent Political Economy*, in the current number of the *Quarterly Review*. Professor Nicholson will find Mr. Keynes' book refreshing. It is an emphatic justification of many contentions in his article. The "fashionable terminology and the usual curves" are here replaced by the purest English and the simplest statistical tables. Nothing, by the way, is better than the statistical work. No figures are given but such as are strictly relevant to the argument; they are handled with all due allowance for exceptional or disturbing causes, and their evidence is interpreted with unusual caution and sagacity.

There is not much room for originality on the fundamental principles either of currency or banking. This is especially the case with regard to currency. The searching discussions which followed the monetary disturbances after 1875, and the admirable work of men like Dana Horton, Lindsay, Conant, and others, have led to a remarkable advance, almost a revolution, in expert opinion on monetary subjects. But most readers will learn the extent of this advance for the first time from Mr. Keynes' book; and the most *blasé* student of currency literature will be delighted by the freshness of the handling throughout, and the acute and valuable observations with which the work abounds. The general public, indeed, may find some passages rather startling, as where Mr. Keynes refers with scarcely veiled contempt to the "sound currency" maxims of the last generation, or to the mechanical principles on which the venerable Act of 1844 was based. But they will be reassured by the evidence given on every page that Mr. Keynes knows what he is talking about, and has taken full account of business practice in this and other countries. See, for instance, the very sound appreciation given in chapter ii. of

the international banking position, and the many passages dealing with exchange. The tone of banter adopted on p. 143 may be regretted, for an honest concern to prevent even the suspicion of corruption is hardly a matter for ridicule, least of all in these times; but this apart, the author's general caution and reserve are beyond criticism. Academic bureaucrats may be interested in a dictum on p. 238: "It is a remarkable thing that the two classical pronouncements on the fundamental problems of Indian finance which have stood the test of time—Mr. Dickson's in 1867, on the question of a Central Bank, and Mr. A. M. Lindsay's, in 1878 and subsequently, on the regulation of a gold standard, should both have come from secretaries of the Bank of Bengal, not from high officials of State." Wisdom is also shown (p. 221) where Mr. Keynes urges that "an insistence on due publicity, rather than compulsion or regulation in matters of policy, is likely to be the best remedy" in dealing with banks of established position.

But felicitous passages abound, and one might go on quoting until the author's copyright was seriously infringed. Enough has been said to show that while academic students will be grateful for this acute and informing work, it will be read with as much interest, and perhaps even greater appreciation, by men of business and affairs. It deserves to rank in this respect with the work of Bagehot and Withers. The author, indeed, gives proof of a remarkable and very rare union of qualities which place him in the front rank of living economists. He combines with first-rate analytic power and grasp of principle a thoroughly realistic bent and wide familiarity with business and administration. His exposition is quite exceptionally lucid; his judgment, sagacity, and caution are evident throughout; his style is terse, exact, incisive, and eminently readable. Generally, and in this point of style more especially, the book constantly recalls the brilliant work of Jevons.

H. S. FOXWELL

Indian Offer of Imperial Preference. By SIR ROPER LETHBRIDGE, K.C.I.E. (London: P. S. King. 1913.)

SIR ROPER LETHBRIDGE has made the important discussion on imperial preference, which occurred last March in the Legislative Council of the Governor-General of India, the text of a fresh plea for the adoption of that policy to regulate the relations of England with her great dependency. The imposition of free trade in opposition to "the considered wishes of the Indian peoples" is,

in the writer's opinion, "monstrous arrogance and oppression." Protection against all the world, which is what most educated Indians favour, might, it is admitted, raise the cost of living in India, and is impracticable so long as England controls its destinies. Sir Roper Lethbridge finds in taxation of foreign imports and imperial preference salvation for both countries, and draws a glowing picture of the consequent rapid expansion of mill industries, which will relieve "the congested agricultural industry and develop the immense latent resources of the country." Notwithstanding Mr. Austen Chamberlain's laudatory preface, the pamphlet cannot be called a weighty contribution to that "full, temperate, and unbiased consideration of the whole question" for which the Indian Finance Member pleaded. Its whole statement of the case is exaggerated. Of this an example will be found on page 124, where the writer refers to the millions of acres of wheat land in the Punjab, which will be brought under canal irrigation and the plough "the moment" that the stimulus is applied . . . of an assured preference of 2s. a quarter." During the past twenty years the construction of new canals in the Punjab has been carried out with the greatest energy and success. Colonists have flocked to the new lands the moment they became available without any stimulus but the keen land hunger that exists. There is little congestion in the Punjab, and the "armies" of "landless cultivators" are a figment of the imagination. •

Sir Roper Lethbridge assumes that the one thing needful to secure that rapid development of mill industries, which he holds to be urgently necessary "to relieve (India's) congested agricultural industries" and to furnish the Government with a means of obtaining money to replace the lost opium revenue, is import taxes on certain commodities which non-British countries send to India, and export taxes on certain commodities which India sends to them, together with preference in British markets. Agricultural congestion exists in some crowded districts in the east of the United Provinces and in parts of Bihar and Bengal. Taking the country as a whole it is not a serious or an increasing evil. In the most thickly populated track, the United Provinces, the growth of population in the past twenty years has been extremely slow, and this is also true of Bombay. The population of the Punjab declined between 1901 and 1911, notwithstanding a large extension of the cultivated area. Even in Bengal the rise in twenty years was only 6 or 7 per cent. There is scope for the expansion of mill industries, but very rapid expansion is fortunately not a matter of overwhelming importance. The country is

not ready for it. The want of trusted leaders of industry, of trained managers, and of efficient workmen is a greater obstacle than any commercial policy imposed by England.

There is at present an export duty on rice and there are moderate import duties on a large list of commodities. It is probably quite true that a finance minister, who was faced with large recurring deficits, could increase the number of the former and enhance the rate of the latter in the case of non-British imports, without provoking retaliation. It may further be admitted that his action would not raise the cost of living for the all-important agricultural class, which clothes itself with the products of Indian and English cotton mills and is for the most part content with crude native sugar. But it is difficult to assert that the need for such measures has arisen. In his Budget for the current year Sir Guy Fleetwood Wilson allowed for a reduction of two millions under opium, putting the anticipated revenue at less than one and a half millions. But he was able to show a surplus of £1,300,000. The loss of the opium revenue is, none the less, a serious matter, for receipts from land revenue, which contributes 21 millions to the revenue, are liable to violent fluctuations, every Indian Budget being "a gamble in rain." Sir Roper Lethbridge's assertion that there is little room for further enhancement of the land revenue is open to argument, and his statement that "it already absorbs about half the proceeds of the cultivation of the soil" is wholly misleading. Surely he does not believe, as Mr Keir Hardie once did, that the Government takes the money equivalent of half the produce. Mr. Keir Hardie confounded half the produce with half the rent which the landowner receives, or would receive, if he let his land instead of tilling it himself. Of course, the actual assessment is often far below the standard. The excise revenue is increasing, notwithstanding Sir Roper Lethbridge's curious misstatement that the Indian peasant "does not drink alcoholic liquors." He fails to notice the more satisfactory source of revenue which the Government possesses in the increasing receipts from railways and canals. It can borrow for productive works at less than 4 per cent., and in the last four years the interest earned by railways on the large capital invested in them by the State has been $4\frac{1}{2}$, $4\frac{3}{4}$, 5, and $5\frac{1}{10}$ per cent. In 1912-13, a very prosperous year, the railway surplus was five and a half millions. Productive irrigation works earned 9 per cent., and the surplus, after deducting loss on protective works, exceeded one million.

There is no attempt to explain in detail how each of the proposed taxes will help the development of Indian mill industries.

Till labour and other conditions change, taxation aimed at foreign countries may well operate mainly to divert work from Continental to English mills. If this occurs there may be a very awkward clamour for the closing of the breach in the protective wall. Special stress is laid on the cases of jute, cotton goods, and sugar. In raw jute India has a monopoly. Between 1876-77 and 1906-7 the value of the exports rose from 1½ to 17 millions. Most of the jute goes to foreign countries. It cannot be argued that the Calcutta mills, with all the jute in the world growing at their doors and their command of cheap labour, require protection. They supply India, and their exports rose in the period above-mentioned from half a million to over ten. The amount of cotton goods received from countries other than England is very small. On page 63 Sir Roper Lethbridge says that certain figures given by Mr. Dadabhoy show conclusively that the dangerous competition to the Indian industry comes from Japan and China. Mr. Dadabhoy pointed out that Japan had ceased to buy Indian cloth or yarn, and that exports of cloth to China had shrunk enormously. He did not allege that Japan was sending cotton goods to India, though as a matter of fact she does send a little. Our silver policy seems to favour Japanese and Chinese products unduly, and it would not be hard to justify an enhanced import duty.

It is true that there has been a remarkable growth in the imports of refined sugar, and a shrinkage in the area put under cane. Cotton has become a more important canal crop, and the canal officer probably welcomes the change, because cotton takes much less water. The yield of sugar in India is very low, probably one-third of that in Java, which now commands the Indian market. The methods of extraction are primitive, and no country can now produce sugar successfully which does not adopt the "central factory." There are special difficulties about its adoption on a large scale in India, and till they are overcome it is not much use to apply the stimulus of an import duty.

As regards preference, Sir Roper Lethbridge quotes a resolution of a body of Indian planters in which raw cotton is included in a list of commodities fitted to receive it. But probably he does not expect England to tax American cotton. As to wheat, the 2s. duty has been jettisoned, and possibly may not be fished up again. India can readily dispose of all its surplus wheat. Indian tea captured the English market long ago. Protection might stimulate the growing of coffee, cocoa, cinchona, and rubber in the limited parts of India suited to their production.

Tariff reform and imperial preference might enable the Indian Government to raise more money without appreciably adding to the burdens of the people, but no such marvellous development of Indian industries as the writer anticipates would follow.* If England adopts tariff reform, the inclusion of India, is not likely to do it any harm, and may perhaps be of some advantage to it. It would at least go some way to meet the views of the small educated class. Their opinions on the question, if not identical with "the considered wishes of the Indian peoples," who have never heard of the matter, can no longer be met by a blank refusal to consider it.

J. M. DOUIE

Advance, India! By M. DE P. WEBB, C.I.E. (London: P. S. King and Son. 1913. Pp. 184. Price 5s.)

To the chairman of the Karachi Chamber of Commerce we owe in a great measure, if indirectly, the inquiry into the currency policy and financial methods of the Indian Government which is now proceeding before a Royal Commission. Swayed, I doubt not, by honest conviction, Mr. Webb has discharged, somewhat violently perhaps, a public duty and, thus far, his zeal and energy are praiseworthy. Yet there is much in the presentation of his case to which objection may be taken on political, as well as on economic, grounds. In a previous book, *Britain's Dilemma*, Mr. Webb set forth his charges against the Government of India and the India Office—charges which are now engaging the attention of the Commission. The present publication recapitulates and particularises, but adds little that is new beyond an interesting chapter on Indian banking and a much-to-be-deprecated, because bitterly partisan, attack on the British Chancellor of the Exchequer.

The author's theme is, as before, the Report of the Indian Currency Committee of 1898, commonly called the Fowler Committee. That Committee, approving the Mint Closure Act of 1893, recommended that the sovereign should be legal tender in India, the mints opened to the coinage of gold, and the profits on silver coinage kept in gold as a reserve fund for maintaining the exchange value of the rupee. The failure to open the mints to the coinage of gold and to encourage sufficiently its circulation; the continuance of rupee coinage on a large scale; the accumulation of excessive cash balances and their alleged mis-use in London—these form the burden of Mr. Webb's plaint.

And the remedy? "India should have a gold currency; and the sooner the better." It is, we are told, "India's ambition to be equipped with the best monetary tools and the best monetary system"; with which ambition, it is claimed, the Government of India is in sympathy, while the India Office thwarts India's intentions in the interests of a Lombard Street plutocracy. India's ambition is difficult to gauge, but it may be safely said that she concerns herself little with monetary systems, while the views of the representatives of her mercantile classes who do so concern themselves are generally opposed to the policy of Mr. Webb.

Impolitic, and no longer true, is the statement that "the divorce of the purchasing power of coined silver from that of uncoined silver deprived many of the poorest and most ignorant of a portion of their savings." In the days immediately following the closure of the mints the statement was plausible; but the subsequent course of the silver market, in spite of increased imports of the white metal by India, proved that legislation had merely anticipated the fall which more powerful, if more slowly operating, causes would assuredly have brought about.

The author's views on banking are peculiar, and his definition of the business of the modern banker unscientific. He is opposed to the creation of a State Bank, doubting "the wisdom of carrying banking concentration to a degree which, in case of accident, might jeopardise the welfare of an entire continent," and scorns the "theorist, or even the practical London banker (with no knowledge of India), who believes it possible to amalgamate the discordant elements of the Bengal, Bombay and Madras Presidencies." Yet he must be aware of the great area already served by the Bank of Bengal, and of the discordant elements amalgamated from Rangoon to Lahore. Instead, he advocates the multiplication of "Indian banks, created in India by Indians"; rejoices that "more Indian banks are coming into existence every year. Such developments can only have the happiest results," and gives a long list of banks which are "doing good work for India." The list affrights me! It includes the Credit Bank with seventeen, and the People's Bank with sixty-four, offices in India. Both institutions, with several others of the like class, have since suspended payment, and the whole position of Indian-managed banks has been dangerously shaken! "Credit," wrote Bagehot, "is a power which may grow, but cannot be constructed." Mr. Webb, however, would jerry-build it!

Part III. consists of the *précis* of evidence prepared for the

Royal Commission by Mr. Webb. It should be read in conjunction with the report of his examination in the recently issued "Minutes of Evidence" (Cd. 7069). In that searching examination much of the case set forth in this book crumbled away. There remained little but the justifiable condemnation of bloated cash balances and of the neglect to hold at least a portion of the coinage profits in actual gold. Events have moved rapidly of late in the East, and the statement that "India is the land of dear capital and England the land of cheap capital" almost needs inversion to be a modern truism. India floats her loans on better terms there than she can do in this country, and Mr. Webb could not deny, when questioned, that a great industrial concern can be financed the year round in India on terms which would be cheap enough here. At the last annual meeting of the Indian and General Investment Trust, the chairman said "It is a curious feature of the time that, whereas the rate of interest is rising in almost all other countries, in India it is still tending downwards." India has her recurring periods of dear money, but we must not confuse seasonal stringency with chronic scarcity.

A difficult and highly technical subject has been handled, on the whole, with more practical boldness than theoretical knowledge, and the author has not justified his unsparing criticism of the existing currency system of India. Mistakes there have been, vacillation and hesitation there have been, but the great currency experiment has been a success. India has prospered mightily; her merchants, her traders, and her agriculturists have alike shared in that prosperity. And therein lies the justification of the currency reform. The time was ripe, however, for an investigation which would reveal the mistakes that had been made and provide against their repetition. Mainly by the tireless energy of Mr. Webb has that investigation been brought about, and he may, too, claim credit for having indicated by his criticisms the line which the inquiry should take.

H. M. Ross

Ārthā Necti. By PROFESSOR J. SAMADDAR. (Published at Howrah in Bengal. 1913.)

THE book under review makes no claim to originality. It is an attempt to present, in the most elementary form, the principles of English Political Economy in the Bengalee language. Nothing worth mention has hitherto been done in that language in Political Economy, and it is to be hoped that as more is written on the

subject in the language of the people of the country, a distinct Indian school of economists will gradually be evolved. The present book, therefore, would deserve all the credit of a pioneer if only it had done its task in any tolerable manner.

We find it, however, a disappointing performance. The introductory chapter seeks to give a general idea of the history and development of the science. But this purpose has only been very imperfectly realised. The author's history of the science from the sixteenth century onwards is but a string of names which can leave no impression on the mind of the general student. A wrong impression is left by the way in which the conception of the Economic man is represented as the basis of an existing school of English economists. The descriptions of the Historical school, and of Professor Marshall and his followers, are very inadequate, and sometimes almost meaningless. About the Historical school, all that the author writes is: "The economists of this school arrive at their conclusions after considering the relation of the present social condition of a country to its history in the past. In their opinion, no conclusions on any subject ought to be arrived at without due consideration." Professor Marshall's characteristic principles are said to be, that "the character and efficiency of every man depend on circumstances," and that "progress in arts and industries can be achieved only if people are employed in those tasks for which they are specially fitted."

Worse mistakes lie scattered through the book. The author's explanation of the Law of Diminishing Returns, for instance, is absolutely meaningless; and he makes a mistake of the worst description. Here are his own words, translated: "In trying to increase the value of the produce of the soil by increasing the labour and capital employed on cultivation, the quantity of produce is gradually diminished." The explanation that follows is almost as meaningless as the enunciation. In the very next page he defines a "dose of labour and capital employed in cultivation" as "all the labour and capital employed on a field before the limit of productive employment is reached."

Some credit is due to the author for his renderings of economic terms into the Bengalee language. Yet even here, some of his efforts are scarcely felicitous. "Energy," "utility," and some other terms can be instanced.

A special feature of the book is the chapter on Co-operative Credit Societies, which takes up fully a fourth of the whole. There is more of exhortation and praise in the chapter than of science. There can be no doubt that the indebtedness of the ryot

and the grinding rates of interest prevalent in India, stand badly in need of a remedy, and that co-operative credit societies can do something in that direction.

There is a marked want of a due sense of proportion in allotment of space to the various subjects under discussion. Co-operative credit, as stated above, occupies a quarter of the book, while only half of that suffices for Money, Banking, International Trade, and all kindred subjects. The Quantity Theory, the doctrine of International values, Gresham's Law, the whole subject of Banking, and many other subjects get no consideration, while twelve pages have been devoted to a consideration of the policy of free primary education.

S. C. DAS GUPTA

Good and Bad Trade: an Enquiry into the Causes of Trade Fluctuations. By R. G. HAWTREY. (Constable and Co. 1913. Pp. 279.)

MR. HAWTREY'S essay is a continuous argument without footnotes or references, and the only writer to whom obligations are acknowledged is Professor Irving Fisher. The book starts promisingly. Most expositions of the theory of money are framed in such a way as to suggest, though they do not really imply, that the value of money is determined in some special and peculiar way. Mr. Hawtreys manner of statement avoids this false suggestion. By seizing upon the proportion of their resources that people choose to keep in the form of money as the central fact through which the demand for money is determined, he makes it easy to see that the determinants of value, in the case of money as in the case of all other things, are simply the general conditions of demand and supply. The way of stating the matter which Mr. Hawtreys has adopted is, of course, familiar to pupils of Dr. Marshall; but it has not, so far as I am aware, hitherto found its way into ordinary books.

Mr. Hawtreys purpose is not, however, to develop a theory of money, and he does not proceed far in this direction. His main thesis is concerned with the causation of fluctuations. As a means of investigating this problem, he starts with the abstract case of an isolated country without a banking system, and employing only paper money; and he inquires what would happen if the stock of money was suddenly diminished. Having answered this question, he asks the same question again in reference to more and more complicated conditions. Thus, he first takes

account of the existence of a banking system, then of international commerce, then of the use among commercial nations of a gold currency. He recognises that the most important form in which a diminution in the stock of money appears is that of a diminution of the stock of bank-money. "Something occurs to make the banking community reconsider their position in one of the countries where there is inflation, that is to say, where the amount of credit may have outstripped the prudent proportion to the supply of legal tender money" (p. 176). The results of the consequent reduction of credit on the part of bankers are traced in an elaborate deductive argument. The author then states generally, while admitting, of course, that a detailed proof of this statement would require much statistical investigation, that the movements, which his deductions suggest, are similar to those which in fact occur. "We have shown," he writes, "that the monetary organisation of the world might be expected to engender just such periodic fluctuations as do actually occur" (p. 215). Hence, he concludes, the explanation of fluctuations which he has proposed is, in a rough general way, "verified" in experience.

Mr. Hawtreys's deductive argument is, for the most part, a restatement in an elaborated form of commonly accepted analysis. A contraction of the bank-money supplied by bankers causes dealers to offer lower prices to manufacturers, and so, in turn, checks productive activity, until the resistance which wage-rates offer against conforming with the altered level of prices is overcome. The relations between the country primarily affected and other countries somewhat mitigates this result, because it allows of an inflow of bullion, which indirectly checks the fall of prices. "The depression is by this means alleviated in the area of stringency, but only at the cost of being extended in some degree to all the other countries" (p. 105). There is little to quarrel with in the general lines of this familiar reasoning. Sometimes a lapse occurs. Mr. Hawtreys repeats the popular argument that government authorities cannot steady industry by adjusting the period of their investments, because the money to be spent by government can only consist of money that would otherwise have been spent by private firms. He does not perceive that this argument contains a fallacy, nor is he apparently aware that the fallacy has been exposed. Still, his deductive reasoning as to the way in which an initial monetary disturbance tends to work itself out seems, generally speaking, to be sound. Furthermore, the steadiness and clarity of vision with which he follows

the thread of his argument through successive stages of complication are deserving of cordial praise. The method he has adopted is a difficult one, and to carry it through successfully demands the sustained effort of an able mind. Though the results attained are not novel, Mr. Hawtrey, in throwing open so well-constructed a thoroughfare towards them, has done a useful work.

There remains, however, one important criticism, which it is necessary to make upon the book as a whole. Mr. Hawtrey, as has already been indicated, is not content with analysing the way in which such a change as a contraction in the supply of bank-money works itself out. He argues—or seems to argue—further that, because in the real world monetary and banking movements are associated with industrial movements in the way that his argument leads him to expect, therefore in these monetary and banking movements the causes of industrial fluctuations have been discovered. He speaks in so many words of the “inherent tendency towards fluctuation” in “the banking and currency system which actually prevail in the world at the present time” (p. 216); and the whole drift of his discussion implies that the causes of fluctuations are exclusively monetary and banking causes. Such a point of view is exceedingly superficial. To show that a certain disease is always accompanied by certain symptoms, is by no means to show that the symptoms are the cause of the disease. It is undoubtedly the case that the fundamental causes of industrial fluctuations often make use, as it were, of monetary and banking systems as the medium through which they act. But there is no reason to suppose—indeed, there is abundant reason to deny—that they are themselves in any sense resident in these systems. Variations, for example, in the general bounty of nature, or waves of confidence or depression in the outlook of the business community, exercise much of their influence upon industry *through* the banking system; but they themselves lie wholly outside it. Mr. Hawtrey has failed to grasp this important point. As a consequence, he has shut himself off from what might have been a very interesting inquiry, namely, first, how far does the peculiar mechanism of the monetary and banking system *augment* the fluctuation-producing power of the causes that work *through* this mechanism from outside; and secondly, what is the relative importance of these causes as compared with those that originate within the mechanism itself? Furthermore—and this is a still more unfortunate result—the surprising defect in Mr. Hawtrey’s argument, to which attention has just been called, makes itself felt continually

in the course of his exposition, and throws the whole picture somewhat out of drawing.

A. C. PIGOU

L'Organisation du Crédit en France (Étude comparée des principaux systèmes de Banque). By ALBIN HUART. (Paris: M. Giard & E. Brière. Pp. 348. Price 7 francs.)

IN issuing this book the author undertakes to fill the void in French economic literature occasioned by the absence of a scientific study of banking and credit, and expresses his surprise that such a work has not been attempted hitherto.

From the comparative standpoint there is much that is new in the book, but there is nothing novel in the author's treatment of credit transactions and the banking operations to which they give rise. His chapters on these matters hardly fill a gap in French literature; Victor Richard's *Traité Élémentaire des Opérations de Banque*, although not exhaustive, is an excellent work on the subject, while *Les Opérations de Banque*, by Courcelle-Seneuil, is a brilliant analysis of the economic side of banking and currency.

Apparently the work is intended to meet the needs of students taking a special course on the principal banking systems at the "École des Sciences Politiques," and for that reason the first twenty-five pages are devoted to an explanation of the various forms of credit, followed by the bases of a rational banking system. M. Huart advocates the principle of a single Central Bank, with sole note-issuing powers, and in view of this privilege he would have its operations limited in a very precise manner by legal enactments. Apart from its note issue, his opinion is that the functions of such a bank should be confined to the fixing of the rate of discount, the discounting and re-discounting of commercial bills, and advances on securities. It is to be doubted, however, whether a bank could successfully limit its operations in this way; and in any case it is unlikely that such an institution could exert the beneficial economic influence the author ascribes to it. A single Central Bank with the monopoly of note-issue may or may not ensure the industrial and commercial progress of a country, but in view of the unparalleled success of the British system, one is not convinced of the higher merits of the author's "banque rationnel." Economists, moreover, will be inclined to doubt the impartial examination of banking systems at the hands of a writer who states definitely, (1) that the position

of the Bank of France is superior to that of all the world's banks of issue, because of its absolutely private character and its independence of the Treasury; and (2) that the French banking system is better than similar foreign systems, since it lends itself admirably to the economic expansion of the country; and does not commit the errors of certain foreign banks, which imprudently convert their disposable funds into real estate and so entail the industrial framework of the country.

French banking is said to be situated exactly between the English system, much too restricted, and the German system, much too vast.

Considerable space is devoted to an examination of the crossed cheque: its use has not rapidly advanced in France owing to certain restrictions. The cheque must be presented for payment within five days, or eight days if drawn from one place on another; when circulating in the place in which it is drawn a 10 c. stamp is required, otherwise the duty is 20 c., and this tax the author believes has prevented the greater extension of the use of cheques in France. In this connexion the Clearing Houses of London and New York are compared with the *Chambre de Compensation des Banquiers de Paris*, and the result is interesting as showing how this method of centralizing the drawings of and on the various banks has grown.

- The most interesting part of the book, and certainly the most useful, is that dealing with the actual working of the Bank of France. Its operations are treated from three distinct points of view: those of a credit establishment, of a bank of issue, and of its connexion with the Government Treasury.

Under the law of 1897 the Bank's note-issuing powers were fixed at francs 5 milliards 800 millions, and the balance sheet of 5th October, 1911, showed 5 milliards 530 notes in circulation. In view of its fixed limit the author is inclined to the opinion that the position of the Bank of France might become grave if the maximum is reached. He argues that the limit of note-issue should not be arbitrarily fixed by a parliamentary law, but that an enactment should be in force permitting the note circulation to be a varying one in proportion to the monetary situation, as revealed by the Bank's weekly balance sheet, since in the not unlikely event of the present maximum limits being reached, the Bank would be obliged to refuse further calls for credit, or, alternatively, to encroach on its reserve.¹

¹ By the law of 29th December, 1911, the note-issuing powers of the Bank of France were raised to the maximum of francs 6 milliards 800 millions (£272,000,000).

Such a system is, we imagine, hardly practicable in these days, and judging by the present policy of the Bank of France, no change is needed. The French bank-rate tends to remain very steady at 3 per cent., and compares favourably with other European rates. For instance, the Bank of France rate from 1876 to 1909, with thirty-one alterations, averaged 3·13 per cent.; over the same period, the Reichsbank changed its rate 125 times, giving an average of 4·11 per cent.; while the Bank of England rate was changed 200 times, which gives an average of 3·28 per cent.; from which it follows that French commerce benefited to the extent of 0·98 per cent. over German industry and 0·15 per cent. over British industry.

The French Government derives a considerable income from the taxation imposed on the Bank's operations, and the author gives an instructive analysis of the position. The Bank of France, it appears, keeps the Government accounts free of charge, and taking into consideration this facility, the loss of interest on advances to the State, the cost of the manufacturing of bank notes, and the taxation the Bank pays on its productive circulation, it is estimated that the Government gains on an average francs 17 millions per annum from the Bank's operations.

The "productive circulation" of the Bank is arrived at by taking the totals of the portfolio, the advances on securities, and the bills to order.

While admitting the inequity of some of the taxes with which the Bank is burdened, we are inclined to think that the author under-estimates the value of the Government accounts. Most bankers are well aware of the advantages accruing to any bank which is the custodian of State funds, and it is no uncommon thing for interest to be paid on such credit balances. A bank carrying large State funds is frequently able to obtain a handsome return by utilizing the surplus as call money on the short-loan markets.

The extension of the branch banking system in France is freely discussed, but the conditions governing the opening of branch banks do not compare favourably with our British system.

The book also contains a good deal of interesting matter on the development of French credit establishments, and a study of the various methods employed leads one to the conclusion that the small farmer, the retail trader, and the industrial class are much better catered for than are similar classes in Great Britain. After showing the interconnexion of the credit establishments, the author proceeds to point out the defects in the elasticity of

the system, and draws instructive comparisons between the French institutions and the industrial banks of Japan and Germany and the *Credit Populaire* of Italy.

The chapters on foreign banking are largely given up to an examination of the French colonial banks, and a perusal of the working of the past few years is not without interest to the Englishman. The German policy of creating banks in foreign countries is, M. Huart thinks, a good one. The Germans are ever ready to extend their sphere of influence, and whenever there appears the slightest chance of the political or economic future of Germany benefiting, a bank, or group of bankers, furnish the necessary capital for opening a branch in the centre in question. France, on the contrary, appears to rely on the strength of international agreements, and is committed in a greater or less degree to international banking consortia, which, however excellent the business they bring to the French financiers, are deplorable from the State's point of view.

There are many useful banking problems investigated in the book, and each chapter is followed by a bibliography upon which the material is based. The author does not appear, however, to have been very happy in his choice of English works, and the banking books to which he has had access cannot be regarded in any sense as standard works.

WILLIAM F. SPALDING

La Banque Nationale de Belgique. Les Théories et les Faits.

By ERNEST VAN ELEWYCK. (Brussels: Librairie Falk fils. 1913. Pp. vii + 380 + 412. Fr. 15.)

IN so old a trade as Banking, where the human interests in play are as steady in direction as the trade winds, there is an especially good opportunity for the pure theorist. Elsewhere theory must stop half-way and take as its units the ideas of the market place. If it is pressed further and these ideas are broken up into their constituents, its answers must be given in terms which common sense and experience cannot evaluate. But in Banking the simplicity and suggestiveness of these more elementary ideas make them worth the stating, even apart from the consideration that their clear expression removes Banking from the isolation in which its outward forms tend to place it, and fits the work of the banks into the general system of production.

It is not a complaint directed especially against M. Van Elewyck to regret that he does not take this opportunity of filling

a preliminary chapter in this way ; indeed, he is perhaps to some extent precluded by the terms of reference which he has laid down for himself. "J'ai pensé qu'à côté de la voix socialiste qui accuse la Banque Nationale d'être une création capitaliste, plus soucieuse d'intérêts privés que de l'intérêt public, et qui proclame l'impérieuse nécessité d'une banque d'État s'inspirant de l'évangile mutuelliste, il était utile de faire entendre une voix libérale, condamnant les excès de l'intervention parlementaire, si souvent incompétente et presque toujours maladroite. . . .

• "Puisse-je avoir fourni au libéralisme économique autant d'arguments que l'école socialiste belge en a fourni, depuis, une douzaine d'années, à nos journalistes et à nos parlementaires ! C'est le but principal de ce livre."

It is, however, so easy to be content with the financial expression of events, and so very difficult to see their true relation to the social facts which underlie them, that one still regrets that an author evidently so well qualified should not have given us more of this part of his experience. When, for example, one hears that the effect of an event is that the bank rate rises 1 per cent., the author doubtless knows the rest by instinct, but the uninformed reader wants to know what this sign in the sky portends. Do the more mobile exports tend to move ; if so, what are they ? Are commercial and industrial operations contracted ; if so which, and to what extent ? And so on. Again, few people would be in a much better position than the "Président de la chambre de commerce de Bruxelles" to trace the influence of the banks upon the development of business capacity. The efficiency of the factory is increased in a real and important way by the work of the railway, which enables its separate parts to be produced at the most efficient sources ; is the effect upon the efficiency of the business undertaking an important one when the transport work of the banks and the stock exchange organisation enables its constituents, capital and business ability, to be produced separately at their most suitable sources ?

It is, however, hardly fair to expect M. Van Elewyck to have developed issues which are not strictly relevant to his purpose ; and, indeed, his method and scope have great advantages of their own.

• Quite a considerable portion of these two volumes is made up of well-chosen quotations from the work of economists whose names should evidently not be so unfamiliar as they are, and from the speeches of politicians of every shade whose utterances have a special interest not only in showing how the political mind

approaches these questions, but also in marking the contrast between the commercial interest which dominates the administration of the Bank of England and the many kinds of influences which affect the policy of the Bank of Belgium.

In this way, by quotation and counter quotation, rounded off with a curt and dispassionate expression of his own views, M. Van Elewyck covers a very wide field in history and theory; the origins and growth of the Banque Nationalé; the political influence of the State and the detailed administrative policy in each department of the bank. The chapters on L'Escompte, L'Encaisse et le Portefeuille étranger, and L'Émission, will probably be of the greatest interest to most economists, but the excellent analytical table of contents enables one to pick and choose with great ease.

There is, I think, nothing of importance in this work which economists would wish to dispute; one leaves it with a comfortable sense that orthodox economic theory has been more firmly established by the testimony of a man of business. It is not M. Van Elewyck's purpose to enrich economic theory, and he does not do so, but he has his "pocket full of sixpences," and the occasional gleam of a coin does much to relieve the subject of a natural dullness, from which neatness of exposition cannot entirely save it. It is a sound, well conceived, clearly written treatise, in which the author's conclusion in favour of greater freedom does not haunt the pages as an obsession, but arises spontaneously from each chapter of the evidence. To economists it gives facts of considerable interest, copious statistics, and a clear insight into banking administration of a kind unfamiliar in England. To "libéralisme économique" it can be nothing less than an arsenal.

F. LAVINGTON

Commercial Paper for Merchants, Bankers, and Investors. By Messrs. BABSON and MAY. (Massachusetts: Babson's Statistical Organisations. London: Telfingham Wilson. 1913. Pp. 246. 8s. 6d.)

THE primary object of this work, specified in the preface, is to assist the officials of the twenty thousand banks of the United States of America in the task of selecting the best commercial paper. Only a portion of the contents deals specifically with this subject; the greater part of the volume is occupied with historical and other details connected with banking.

The advice given as to the selection of such paper is sound,

and suited to the local conditions which are likely to confront those charged with the responsibility in the United States of America of holding it as a security; though no written instructions however, wise and clear though they may be, can take the place of common sense and practical working acquaintance with commercial banking.

The book has a wider interest than the preface suggests, for the collaborators have appealed to a much larger circle of readers, to all appearance, quite unconsciously.

In the course of their attempt to dry-nurse the budding banker, they have laid bare one of the deep-seated causes, which, on several occasions, have rendered the United States of America the theatre of financial crises, from which the banking centres of other great countries have been, fortunately, almost free—except in so far as they have suffered secondarily as a consequence of American imprudence. The disease, if one may term it so, may be diagnosed as the custom of putting commercial paper to a use severely banned in other banking communities. Commercial paper in Europe, certainly that which is not secured by collateral, represents goods actually sold, for which it is not convenient for the purchaser to pay until a reasonable time has elapsed to allow for transit and delivery, and for the whole or partial realisation of the goods. The writers of this volume divulge incidentally that a large proportion of commercial bills in America are created to cover the period within which a *possible* sale may be effected. In other words, banks afford facilities to the manufacturer or merchant to embark upon speculative business, by discounting such paper, and providing him with the wherewithal to repeat the operation. If, in England, Messrs. Huntley and Palmer draw a bill upon the Army and Navy Stores, the bank that discounts the bill knows perfectly well that the biscuits, the value of which the bill represents, have been actually sold; but the writers suggest that in the United States it lies within the power of any manufacturer in good repute to create bills and obtain funds from his bankers against them on the assumption that his goods will have found a purchaser before the bills fall due.

It needs no great flight of imagination to picture the inevitable result that must ensue when over-supplied markets, or disastrous harvests, check, for a while, the national prosperity. The banks find that they have exhausted their resources in furthering the optimistic plans of their clients, and in the frantic scramble to obtain currency, panic and its attendant evils have full sway. Losses have to be cut and goods sacrificed, with the result that

the manufacturer is crippled and his fall involves a loss upon his bank, which should never have assumed anything in the nature of a partnership with him in his trading risks.

The authors do not appear to attach sufficient importance to the personal equation in commercial bill transactions, for they throw out a suggestion that specially unsecured risks could be met by a system of insurance. The present writer, during his thirty years' experience in the City of London, has known men whose means have been in extreme inverse ratio to their characters for probity, and yet whose written engagements were preferred to those of incomparably richer men. No insurance company can possibly discriminate on matters so delicate, but a bank manager of judgment and experience can discern such a risk to a nicety. In the old days of private banking in the North of England, many a now prosperous and flourishing business has been brought into being and fostered by the banker's individual and personal knowledge of the character of the borrower.

This volume is peculiarly topical, in view of the United States Government's desire to reform currency arrangements in America. It is possible that banks may be federated and empowered to inflate the currency in time of pressure, by certain expedients involving the use of selected commercial paper as part-security for creating additional currency notes. Artificial expansion of currency bristles with danger, and the selection of commercial paper for such a purpose becomes a consideration of the first magnitude.

In an educational work, such as this volume is intended to be, the careless punctuation, frequent errors in spelling, and sometimes irritating lack of lucidity, are blemishes, the more noticeable, because the printing, paper and binding are excellent. Moreover, Sir Edward H. Holden, when quoted as an authority, should have his Christian name inserted correctly, and a great institution possessing a world-wide reputation, such as the Deutsche Bank, is entitled to have its name spelt with accuracy.

Evidently both pains and care have been taken in the compilation and presentation of facts, so as to form a concise book of reference in regard to the banking practices of the chief European nations, as compared with those of the United States. The frank admission of defects and disadvantages in those of the latter country gives to the work an impartial character which adds to its educational value to officials connected with local banks.

BENJAMIN WHITE

Copartnership in Industry. By C. R. FAY, M.A. (The Cambridge Manuals of Science and Literature. Cambridge: University Press. 1913. 1s. net.)

"THE habitual code of sentiment which prevailed between employers and workmen in the times when the former were regarded by both law and usage as the governing class is now greatly relaxed, and cannot be revived. A substitute has now to be found for it, arising from the feelings of equity and enlightened self-interest and mutual forbearance, which should exist between contracting parties who can best promote their several chances of advantage by aiding and accommodating each other." Mr. Fay quotes these words on the first page of his book, and they well represent the spirit in which he treats the subject. There is, as he says, "a boom in the theory of" copartnership to-day: it "is very much in the air," and this book is one of the signs. It is very brief, containing little over 30,000 words, and for a little book it probably attempts too much, touching as it does on cognate movements such as consumers' co-operation, agricultural co-operation, and copartnership in housing—matters difficult to omit altogether and equally difficult to deal with, in addition to copartnership proper, in so small a space.

I have spoken of the spirit in which Mr. Fay treats the subject. When so many are talking of copartnership it is naturally treated in many spirits. Syndicalists are writing of a temporary copartnership which they desire, between a trade union monopolising the labour in a given trade, and an association of employers monopolising the capital and the commercial side thereof, such temporary copartnership leading the State shortly to step in and oust the capitalist element. Others talk of copartnership, again, as if it were merely our old friend profit-sharing, leaving the capitalist system practically unchanged, save for the addition of industrial peace, and an improvement in the workers' earnings. Mr. Fay seems to see further than this; yet he does not put forward as clearly as ardent advocates would desire the ideal of copartnership as a peaceful, but very far-reaching, industrial and social transformation. They have never, indeed, preached it as a panacea, but they do claim that in most forms of employment where goods are produced or distributed, whether that employment be under the State or municipality or some great company, the worker should be given, in addition to standard wages, some direct interest in the profit of his work,

some direct voice in its control, and, where circumstances allow, the right to invest in the capital with which it is carried on. Thus they hope to see industry gradually and peacefully transformed from a capitalistic to a coöperative form.

The Times once described copartnership as an improvement on profit-sharing: that probably is the view most likely to commend it to business men, and it fairly represents the general impression of the movement conveyed by Mr. Fay's book. The improvement carries us well beyond profit-sharing itself: it consists in capitalising the bonus, or profit shared with the workmen. This is the characteristic difference between the great majority of the earlier English schemes where the profit was paid to the worker in cash, and the later schemes where the tendency is to accumulate his bonus in the capital of the business, thus justifying his title of copartner. Put this way the distinction seems clear and simple, but as Mr. Fay well points out, you can have degrees of copartnership: it "may be of a simple or advanced kind." Simple "when the sharing of profit is associated with their employment in some permanent form, in a sickness or pension or savings fund, or in a regulated plan of investment in the firm's capital"; advanced, "when the position of the workers in the business is so deeply rooted that the abandonment of copartnership would necessitate a perceptible change in the composition of the directorate or a serious change in the composition of the capital. Between the two kinds of copartnership there is no hard and fast line." In fact, there is no hard and fast line between profit-sharing in its simplest form (which amounts to very little more than a gratuity), and, at the other extreme, a complete industrial democracy. Much fruitful but necessarily inconclusive, discussion has taken place as to where exactly the line should be drawn, how much interest in the capital, and what share of the rights of shareholders, belonging to the workers employed, should be considered the minimum, and qualify a business to be called copartnership. Mr. Fay's long acquaintance with, and thorough knowledge of, the subject are well known, and in his limited space he manages to describe many of the most typical instances of copartnership past and present, whether copartnership between employer and employed, or copartnership among a body of workmen carrying on their industry co-operatively without any employer. The celebrated examples of Messrs. Briggs, in England, and of Godin and Leclaire, in France, are followed by the more recent instances of the English gasworks, of Messrs. Lever Bros.' Copartnership

Trust, and by a number of others, in this and other countries, less known but not less instructive. In so large a mass of information it is impossible that there should be no slip, and Mr. Fay has been misled by the French authority he quotes into thinking that profit-sharing still exists on the Danish railways.

Besides a valuable statement of facts, we have in this book not a little of sound comment upon them. In particular, without having space to treat fully the relations of copartnership and trade unionism, the author takes an early opportunity of dispelling the notion that they are incompatible and that copartnership is advocated as a substitute for trade unions. "Their value," he says, "is so great as to make the substitution of copartnership for trade unionism a thing neither to be expected nor desired. In the trades where unionism is established, copartnership must accommodate itself to the fact, and while leaving to the unions the maintenance of the general minimum, concentrate on the more equitable and harmonious distribution of the surplus above the minimum." He sees, too, and points out that the things which make copartnership a growing necessity are not confined to capitalistic enterprises. "As surely as municipal trading and large-scale production by the co-operative stores are destined to increase, so surely will they find the problem of capital and labour fastening itself on them with its old dilemma."

The book is remarkably free from dogmatism, from any narrow view of orthodoxy in economic reform, and consequently from hostility to other theories of reform dealing with the same problems from other sides. "Even at the end of our enquiry," he says, "we are unable to state categorically the things which constitute copartnership. For it is not so much a body of things as a body with a spirit in it." This, no doubt, is true; but we have to remember that science has yet to find proof, that a given spirit can exist upon this planet except with an appropriate body. Experience shows that with the best intentions copartnership, if it is to succeed and endure, needs an appropriate framework, now beginning to be pretty clearly understood. The worker, over and above his standard wages and conditions, must have a share in the profit he helps to produce; he must become a shareholder in the capital; and, if copartnership is to be considered full-grown, he must acquire the ordinary rights of a shareholder.

ANEURIN WILLIAMS .

The German Cotton Industry. By R. M. R. DEHN. Economic Series, No. xiv. Gartside Reports on Industry and Commerce, No. 10. (Manchester: University Press, 1913. Pp. 104. Price 2s. net.)

MR. DEHN was a Gartside Scholar of Manchester University, and, in accordance with the conditions of the scholarship, he spent a year in Germany in investigating the cotton industry there and in collecting material for the present report. The result of his labours is a clear and succinct account of the German cotton industry which will be found of considerable value by all interested in that industry in this country.

A brief historical introduction shows that the use of cotton in Germany dates back to the fourteenth century, and that the industry was twice almost destroyed, first by the Thirty Years' War, and later by the Napoleonic domination. The industry spread to almost every part of Germany where the textile trades already had a footing, for no one district had, like Lancashire in England, such climatic advantages as to give it a clear superiority over the others. The result is that "the industry is made up of a large number of small industries which have originated at different times and under widely different circumstances. Many of them, founded at a time when the play of economic forces was hemmed in by political divisions which have since ceased to exist, find themselves situated now so unfavourably that they must needs struggle hard to survive. Others have been able to choose the most favourable ground with full knowledge of the conditions under which they would have to work. These conditions have not prevailed long enough for each district to discover and confine itself to the work for which it is best adapted. There is much unprofitable competition, and this is not confined to the German home trade." The number of spindles more than doubled between 1887 and 1909, the number in the latter year being 10,789,239, mostly employed in spinning low and medium counts; there were also 260,323 looms in 1909. Westphalia is the most rapidly advancing district, thanks to the advantages of cheap coal and a more humid atmosphere.

Generally speaking, the German cotton manufacturer is hampered by distance from his fuel supply, and his cotton market, though in Bavaria and Wurtemberg water-power takes the place of coal. The cost of a new spinning mill works out at from 40 to 70 marks per spindle, and of a weaving shed for plain looms at from 800 to 1,200 marks per loom. These costs are much

higher than in England, but they are partly due to the German climate, which makes much stronger structures necessary. Electric driving "has made far greater strides in Germany than with us. The cause of this is partly the higher cost of fuel and the proportionately greater importance of power-economies, but no-doubt the high degree of development of the continental electrical industries is to a great degree responsible. In England the controversy still rages whether electrical driving has any advantages over the old system, or not. In Germany discussion centres rather round the question whether it is the group drive or the individual drive which is to be preferred." The machinery is mainly English. The functions of manufacture and distribution are combined to a far greater extent than in England, and consequently each mill has usually a commercial director as well as a technical manager. The operatives do not make much use of evening classes. "Moreover, since the factory worker tends to be less expert, the wages he can command in the factory are usually not very much higher than those he can command in ordinary manual labour out-of-doors; and since, in the country districts at least, the majority of the operatives are drawn from the agricultural population, there is always a good deal of changing over from the factory to the fields and *vice versa*. . . . Similarly, in the towns there is a great deal of changing over from one class of textiles to another." The stability of the operatives is less, their class-consciousness is less, their sense of craftsmanship is less, and their efficiency is less than in England. "It may be taken that as a general rule 'good middling' is used in Germany to arrive at results which are attained with 'middling American' in England."

The commercial organisation is much behind that of England. There is no futures market at Bremen, which port is the principal cotton market for Central Europe. The dealers at Bremen have their agents in the spinning centres who quote list prices to the spinners and telegraph or telephone orders to their principals. These orders have to be sent before the opening at New York can have become known, so that the dealers can cover in Liverpool. There is no cotton exchange in Bremen, and brokers are an unimportant class. Spinners and manufacturers usually sell direct to their customers, and though there are exchanges in Stuttgart, Chemnitz, and Mulhausen, the bulk of the business is done in the office or by telephone.

Local rivalries, political and religious divisions, and the economic divergence of interests between spinners and weavers,

impair the efficiency of the employers' organisation in everything except labour matters. Employers frequently maintain their own labour exchanges and employ only operatives provided with a "ticket," a method which affords abundant opportunities for black-listing. In 1909 only about 150,000 operatives out of, approximately, a million were organised, and of these 105,000 were in the Socialist union and 35,000 in the Catholic. "In most cases the employers merely lay down the terms which the other side may accept or refuse. Where, however, they have consented to meet and bargain with the representatives of the unions they have usually had little cause for complaint." Although wages have risen from 10 to 15 per cent. in the last decade, they are much below English rates, and fines and premium-systems cause a good deal of discontent. "Taking everything into consideration, the standard of life of the German cotton operative compares unfavourably with that of the Lancashire cotton operative. Meat is seen comparatively rarely on the table and is bought in very small quantities at a time, as prices are high." Workmen are housed mainly in tenement dwellings. "The most usual dwelling consists of a bedroom, a living-room, and a kitchen," rented at from three to six marks per week; if there is an attic it is sub-let to a lodger. Much housing has been done by employers, sometimes in tenement-barracks, occasionally in model villages. Where mills are isolated the employer knows that he alone will profit by the increased efficiency of his workers, and much "welfare work" is undertaken. This, as Mr. Dehn points out, tends to keep wages low. Some interesting figures are given as to wages, but the year to which they refer is not stated. The Board of Trade enquiry into the cost of living in Germany and the German enquiry of 1907 into the output of the cotton industry both contain interesting figures, but neither appears to have been utilised.

HENRY W. MACROSTY

Das Land der Monopole: Amerika oder Deutschland? By J. SINGER. (Berlin: Franz Siemenroth. 1913. Pp. xix + 365. Price M. 8.50.)

THIS book consists of three parts. The first gives an account of the leading combinations in the United States, most space being devoted to the United States Steel Corporation. The second part deals with the principal German kartells, three-quarters of the section being occupied with the coal, iron, and steel syndicates.

The third part compares monopolist tendencies in the two countries. The descriptions of the various organisations are based on official reports and bring our information well up to date. On the whole they appear to be satisfactory and fair in the presentment of facts. The author considers that the development of "mixed" works on a vertical organisation is leading to the development of "trusts" within the Steel Syndicate of Germany, and considers it an open question whether, but for the renewal of the Coal Syndicate and the formation of the Steel Syndicate, the "vertrustung" of the iron industry might not have gone further. It certainly will be very interesting to watch the evolution of those great self-contained works in Westphalia and Lorraine, and to see how far they will be compatible with the continued existence of the kartells. One would expect the emergence of large independent units as in the British industry, which might or might not co-operate afterwards either in formal or informal combinations. The particulars given by Herr Singer as to the Gelsenkirchener Bergwerk and other large concerns will be found very interesting.

The author is very decided in his views on kartells and trusts. "While in America monopolist tendencies are remorselessly persecuted in a manner and by means which one cannot suppose to have brought special advantages to the community, Germany proceeds always more and more on the road to become the land of monopoly." He is very severe on President Wilson and the Democratic Party for their supposed plans to dissolve the trusts and restore free competition, and considers that a reaction from those views will ultimately lead to the victory of Mr. Roosevelt with his policy of toleration of the trusts so far as they are not monopolist. On the apparent antithesis that we must have either free competition or socialism, he observes that it is noteworthy that in America, where till a little while ago the view prevailed that that was the best Government which meddled least, the cry for nationalisation grows ever stronger. He does not support, however, Mr. Gary's proposal for State-controlled prices, and adds: "The mechanism of price-fixing requires some reform in cases where free competition is no longer efficient because too great a part of the production is under monopolist control. In place of a legal fixing of prices, which would give them the character of a tribute, prices should be regulated in such cases by common agreements between producers and consumers who work up monopolised material, both sections being organised for this purpose. Perhaps such an establishment of prices might

take place with the co-operation of a non-partisan board, or possibly a Government department. Where consumption is much divided, and especially where monopolised goods are sold to the public at large, prices should be controlled by a body of this description." This concession on the part of so whole-hearted a defender of American industry is of no slight importance.

The whole of the third part of Herr Singer's book is well worth reading, despite not a few repetitions. He considers it "ridiculous" to speak of the necessity of tariff-protection for the German steel industry, but he is not favourably disposed to reduction of the American tariff on the ground that it would make American industry much more dependent than heretofore on the world market. His opinions of the German captains of industry are not flattering; their most respectable endeavour is to get into the old ruling class of the military and feudal aristocracy, and to use their joint political power in defence of their own interests. He concludes that the aim of a modern democracy should be "to increase as far as possible the share of labour in the national production, and further to give an ever-growing number of the population a share in the produce of capital as well as in the produce of their own labour." Altogether the book will repay reading, even if the vigour of the language evokes as much opposition as approval.

HENRY W. MACROSTY

Ergebnisse der bisherigen Versuche kommunaler Fleischversorgung in den grösseren deutschen Städten. By PROFESSOR DR. SILBERGLEIT. (Berlin: Puttkammer and Mühlbrecht. 1913. Pp. 43.)

THIS interesting little pamphlet is the work of the Director of the Statistical Office of Berlin. It is an investigation into the results of attempts made from August, 1912, to April, 1913, by a number of the larger German cities to provide their own meat supply. The author shows by means of some useful statistical tables printed at the end of the pamphlet that the price of meat of all kinds has been rising, though with numerous fluctuations, from early in the nineteenth century down to the present date. But since 1900 the rise has been continuous and of unprecedented severity.

There was an average rise of over 40 per cent. in the price of the four chief kinds of meat between 1900 and 1912, which is a yearly rise of 3·3 per cent.; but by far the greatest individual rise

was in the last year of this period, when the rise in price over the preceding year, 1911, was 7·2 per cent. Professor Silbergleit estimates that the German people paid 226,000,000 marks more for the meat they consumed in 1912 than they had paid in the previous year. The special cause of this sudden leap upwards in 1912 was the drought of 1911, and a serious outbreak of cattle epidemics which ravaged a great part of Germany. The meat famine—Fleischnot, as it was commonly called—was suddenly intensified, and considerable distress was caused to a large portion of the poorer classes of the population.

A formidable agitation arose all over the country, but especially in the big towns, in favour of immediate measures of relief. The most certain and the simplest remedy was, of course, to lower the duties on all meat imported into Germany. But the influence of the Agrarian party is still so strong that this plan, though vigorously supported by the Social Democrats and the rapidly growing number of opponents of Agrarian protection, had to be dismissed as impracticable. The measure which was actually adopted was characteristically German.

In the autumn of 1912 a law was passed by the Reichstag granting reductions of duty on imported meat on condition that the meat should only be bought by a municipality for its own account and should be sold without profit, either directly or through ordinary sellers of meat, at prices fixed by the municipal authority itself.

Now the main market on which large supplies of meat were then available was the Argentine, and Section 12 of the Meat Inspection Law forbade the importation of frozen carcasses unless they contained a large portion of the entrails of the animal. This provision made it impossible for meat to be imported from the Argentine and Australia, as it could not be properly preserved in that condition. Although great endeavours were made to secure the repeal of this Section they proved quite unavailing, with the result that the only markets from which really large supplies of meat could be obtained were excluded from the operation of the measure, the scope of which was accordingly reduced very considerably. Nevertheless, the German cities at once started to avail themselves of the provisions of the new Act. Out of sixty-two cities of over 75,000 inhabitants, all except two took in hand the municipal provision of meat from foreign sources. Both live cattle and slaughtered meat were imported, the former being only allowed to be drawn from Holland. With the notable exception of Berlin, which brought all its great quantity of meat from Russia,

the majority of the cities imported their meat from Holland. In all, from autumn, 1912, to March, 1913, 9,901 head of cattle and 13,862,901 kilogrammes of meat were imported by the various German cities.

When we come to the most interesting part of the whole inquiry, namely, the effect on meat prices in the different cities, Professor Silbergleit gives us no very definite information. He states that the majority of the cities are of opinion that the extra supply has tended slightly to lower prices, or at least to prevent them from rising as high as they would otherwise have risen. On the other hand, many cities deny altogether that there has been any downward influence on meat prices, though it would appear that in these cases the amount imported has been so small as to form an insignificant proportion of the total quantity consumed. The value of the pamphlet would have been greater if more space had been devoted to the question of price, and if the results had been discussed in some detail in the case of one or two of the cities.

At the beginning of April, 1913, the importation of foreign meat was only continued in twenty-one out of the original sixty cities, and of these several were then on the point of discontinuing it. The main cause of this appears to have been the rise in price of meat in Holland, which no longer made it worth while bringing it into Germany. Also, as the hot weather approached, the lack of cold storage on German railways made the carriage of meat for long distances less feasible.

Several cities have planned special measures for the future, such as entering into long-period contracts with agricultural co-operative societies for the purchase of pigs, or the erection of municipal establishments for the breeding and fattening of pigs.

Although the writer commends very heartily the manner in which the German cities have fulfilled the novel and difficult duties laid on them by the Reichstag, he is very rightly of opinion that other and far more appropriate measures might have been taken to remedy the deficiency in the meat supply.

He quotes with approval the conclusion of the German Municipal Diet (Städtetag): "That it cannot be regarded as the function of German municipal authorities to interfere permanently with the course of food prices and to compensate by means of communal measures for a faulty commercial policy."

The whole story is an excellent comment on the breakdown of Germany's attempt to produce all her meat supply within her own borders; perhaps it has contributed more than anything else

in recent years to strengthen the Social Democratic Party in its struggle against the Agrarian and Clerical predominance in the Reichstag.

C. W. GUILLEBAUD

Railroad Finance. By F. A. CLEVELAND, Ph.D., LL.D., and P. W. POWELL, M.A. (New York: Appleton. 1913. Pp. 463. Price 10s. 6d. net.)

In the preface Mr. Cleveland writes that the purpose of this volume is to describe the methods of financing railroads in the United States. The book seems to have outrun the purpose. There are few aspects of railway finance which are not touched on. Financial aspects of operation forms the heading of one chapter; whilst another is largely devoted to financial considerations in maintenance. In fact, the book might be described as a general review of railroad finance, were it not for the absence of an adequate consideration of the effect of Wall Street manipulation of railway securities.

It is impossible to follow the authors through all the changes in railway financial methods in the United States. They make it quite clear, however, that common honesty has not been a strong feature. At the same time, they make out a case in several instances for adopting the view that inadequate accounts and statistics were the real causes of many failures, which have been commonly attributed to fraud. At the present time such a claim would be impossible. With the standard forms of accounts and statistics insisted on by the Interstate Commerce Commission, ignorance of the position of a railway property could not be pleaded by those in control unless there had been frauds in the accounts' preparation.

The difficulty of adequate State control of railway finances, so long as the control is divided between the States and the Federal Government, is clearly brought out. This is a difficulty which crops up at all stages in the relations of the railways with the United States Government. There are signs, however, that the difficulty is likely to be overcome in the near future. The business sense of the American people is too wise to allow railway enterprise to be hampered much longer by this division of authority. Railway men long ago realised that Federal control was the only practical form of control, and recent decisions on rate questions have made the truth of this so clear that it is impossible to believe that a way will not be found out of the impasse.

One of the most interesting parts of the book is devoted to the question of depreciation and depreciation funds. It is questionable whether there are a dozen railways in the world which know exactly how they stand in this matter. In this country our railways work on no fixed principle. One railway will build nearly all new locomotives out of revenue; another will relay its road with heavier rails entirely out of revenue. The sums charged to revenue account when station buildings are renewed on a more generous scale than before will be a variable depending on the state of the company's finances at the moment and the practice of the individual line. In India on the Government railways fixed percentages are prescribed for depreciation which in some cases are more than adequate, and in others wholly inadequate, to meet the depreciation which actually takes place. In this book it is urged that rule of thumb and haphazard methods ought to give way to scientific calculation of depreciation. The claim seems so obvious that one is amazed that in the twentieth century it should meet with any opposition. The authors are so much impressed with the defects in this matter of the United States and with the better statutes of Great Britain that they do bare justice to the accounts of American railways, and certainly rate those of British railways too highly.

In the matter of editing the book leaves something to be desired. For instance, on p. 12 a table giving relative values of wheat and corn after carriage over varying distances by railroad and ordinary road is given. The table shows that the values are per ton, but it is only from the succeeding paragraph that the reader learns that the values are quoted in "dollars." On p. 47 examples are quoted of shareholders being allowed to take up new capital at par as instances of "privileged subscriptions." The current market prices of the stocks are not given, and Mr. Cleveland leaves the reader to infer that such prices were above par.

It would be an omission to conclude without a reference to the bibliography given in chapter xviii. This occupies no less than 77 pages, and will be invaluable to any future student of the subject.

W. TETLEY STEPHENSON

The San Francisco Relief Survey. By CHARLES O'CONNOR, FRANCIS H. MCLEAN, HELEN SWETT ARTIEDA, JAMES MARVIN MOTLEY, JESSICA PEIXOTTO and MARY ROBERTS COOLIDGE. (New York: Survey Association Inc. 1913. Pp. xxv+483. Price \$3.50.)

To the old world the earthquake of San Francisco seemed one of those dramatic incidents which it is accustomed to associate

with the United States of America—Nature's destructive forces working on her grandest scale, and the apparently almost instantaneous recuperation of a people of marvellous energy and resource. The *San Francisco Relief Survey* tells this thrilling tale in very sober fashion; the writers seem anxious to make no appeal to the imagination. Six competent investigators, three of whom were in the forefront of the relief operations, compiled the volume, the main object of which is to serve as a guide to social workers in any case of similar emergency. The six separate studies when completed proved too voluminous for publication, and the work actually brought out is a condensation of the original material. By the process of condensation the book has suffered in readableness, and the joint authorship is responsible for occasional repetitions. The book remains, nevertheless, a record of exceptional interest, and a mine of information for the social student.

On Wednesday, April 18th, 1906, at 5.12 a.m., the city experienced an earthquake shock of about one minute's duration. In an incredibly short time, 28,188 buildings had been destroyed by fire; 200,000 out of a total population of 450,000 were homeless; water, light, and drainage systems were annihilated. The loss of real and personal property has been estimated at 500,000,000 dollars—the loss of income from unemployment and cessation of business cannot be estimated at all. The entire population had been brought down to the bread line.

At 6.45 a.m. the Mayor took command, and the federal troops which had been summoned were placed at his disposal. His first order was to shoot, not arrest, looters; the second, to close all places that sold liquor. A Citizen Committee was nominated, and various sub-committees, most of which proved useless, were formed. The main work of relief was entrusted to the Finance Committee, which co-operated with the American Red Cross and the army.

The immediate needs of the population were food and shelter, and with the problem of providing these the relief organisation appears to have dealt with remarkable success. There was an abundance of supplies and no excessive hardship, but considerable confusion was introduced by the intervention of unauthorised, self-constituted committees, which took it upon themselves to impress goods and vehicles, and to distribute supplies. The distribution of clothes was not quite so urgent, and apparently presented no difficulties. In the matter of shelter the interference of unofficial committees, who built barracks in haste and repented at leisure, again confused the issues and led to overlapping. Twenty-

one official camps, first under military control, and after August 1st, 1906, under the "Department of Camps and Warehouses," gave shelter to numbers that ranged from a maximum of 17,592 in June, 1907, to 948 in June, 1908. Tents were supplied free of charge for the first seven months; later, wooden cottages were put up at a nominal rental; and finally, the occupiers were allowed, under definite conditions, to remove these cottages, of which they then became the owners.

When the emergencies of the moment had been dealt with, the authorities were faced with the most difficult task of all—that of rehabilitation. Under the direction of the Rehabilitation Committee the associated charities organised, in each of the seven civil sections of the city, a committee of persons who had some knowledge of the district and had already been engaged in philanthropic work there. These committees applied themselves to the task of grappling with the requests for help that poured in upon them, investigating the stories presented, the schemes for business or housing proposed by the applicants, and judging on the merits of the case. Between July 7th and August 1st, 1906, the Central Committee passed 3,000 applications, while 9,000 more were awaiting action. In October a radical change of method was made: the section offices were closed, and all the work was taken over by a Central Committee, with eight sub-committees to deal with special branches of the work.

In the matter of housing the chief difficulty was that of securing competent contractors and plumbers. The best results were obtained by encouraging men to build, or superintend the building of, their own houses. On the whole the help given was effective, and reached the people who were best fitted to make use of it.

Of the 22,140 grants made by the Rehabilitation Committee, 4,888 were designed to enable the applicants to make a fresh start in business. Of these applicants 894 were re-visited later by the survey workers, to ascertain what success had attended their efforts. It was found that 683 had actually started in the proposed business, and of these 543 were found to be still carrying on the business in 1908. In some cases failure was attributed to the insufficiency of the capital granted. "The Committee," says the writer of this section, "seldom erred on the side of generosity." In other cases the help came too late; in others, again, there was insufficient supervision.

The compilers of the survey found their work much increased in difficulty, and their conclusions diminished in value, by the

insufficiency of the records kept. Hence their most emphatic recommendations to relief workers at all stages is: more record of details, more tabulation, and, first and last, more careful registration. The lessons to be learnt from San Francisco stand out in the clearest terms. There must, in a time of disaster, be only *one* committee or corporation, and no division of responsibility for distribution. Nor should the donors of money or supplies impose restrictions—only those on the spot can judge the real need. The San Francisco authorities were embarrassed with vast stores of potatoes, condensed milk, and flour, which they could not use and were not allowed to sell. There must be a strict audit of all cash contributions. There should be a bureau of special relief during the rehabilitation period to meet emergencies, as the ordinary machinery is necessarily slow-going. There should be no rigid limit fixed to the size of grants, and all grants should, as far as possible, be followed up by a close supervision of plans and expenditure. Finally, it is suggested that the American Red Cross, with its existing machinery and organisation, should be recognised as the national agency for all disaster funds.

H. REINHERZ

Vorlesungen über Nationalökonomie auf Grundlage des Marginalprinzipes. By PROFESSOR KNUT WICKSELL. (Jena. 1913. Pp 290.)

THIS substantial volume, which has been translated from the Swedish under the author's supervision, constitutes the first half of a work, shortly to be completed, on general economic theory. It is divided into four sections, dealing respectively with (1) population, (2) value, (3) production and distribution, and (4) capital; the discussion of money and credit being left over for the second volume. The work, as its title suggests, finds its root-principles in the writings of Jevons and Walras. In general character it is a critical exposition rather than an independent contribution to learning. The author is familiar with the writings of Marshall, Pareto, and Böhm-Bawerk, as well as with those of the "classical economists." In his chapter on "Population" he suggests, as a problem, to determine under given conditions the *best* number of persons for the welfare of a country, and he maintains that, among civilised nations in general, population is increasing *more* rapidly than is desirable. The somewhat laborious character of the exposition, coupled with the general

familiarity of the ground covered, makes it unlikely that this new text-book will find many English readers—unless, indeed, an English as well as a German translation is produced.

A. C. FIGOU

Das Versicherungswesen. By DR. ALFRED MANES. (Leipzig : Teubner. 1913. Pp. xiv + 485.)

THE publication of a second edition of this book is indicative of the degree of attention which of late years has been bestowed in Germany upon the scientific study of insurance. In England there is as yet no literature of the subject; in Germany one is rapidly growing up. And there is the further distinction between the two countries, that whereas the little which has been written here has been written for the most part by members of the insurance profession, who have frequently failed to combine with their intimate knowledge of business methods an economic or historical aptitude, and insurance problems have been wholly neglected by the recognised economists, in Germany much serious work on the subject has been done by students who have no connection with the business of insurance, and the economists have begun to include it within the scope of their study. The change that has taken place in their attitude is well illustrated by a comparison of the earlier with the more recent editions of Roscher's *System der Volkswirtschaft*. In the older editions insurance is dealt with merely as incidental to some particular subject under consideration, whilst in the newer editions there appears for the first time a comprehensive survey of insurance in general.

These German writers have unquestionably done a great service for insurance. To replace the old view of it as a system of routine and commercial procedure they have urged the need for a higher conception—the need to consider its nature and objects; to assign it a place in the social system; to bring it, in other words, into focus with the general body of economic teaching. Dr. Manes has done more perhaps than any other writer. He combines a sure grasp of technical detail with a capacity for scientific treatment, and his position as editor of the journal of the *Verein für Versicherungswissenschaft* ensures familiarity with contemporary development.

This second edition upon casual inspection appears to be simply a reprint of the first. The summary of contents presents a practically unaltered arrangement of headings and sections. To judge thus superficially, however, would be seriously to under-

estimate the merit of the new edition. Since 1905 important things have been happening in the insurance world, particularly in respect to the attitude of Governments. These changes have brought with them, of necessity, changes in the organisation and conduct of the business.¹ Moreover, not only has the use of the better known forms of insurance been steadily increasing, but the principle of insurance has been constantly finding fresh applications, and these extensions and new applications have meant amendment and development of the statistical material in which the book is rich. That Dr. Manes has not shirked his responsibilities in these respects is all the more worthy of praise because, with the exception of Workmen's Compensation Insurance, Insurance Mathematics, and Insurance Law (which are expressly excluded from its scope), the study covers practically the whole ground, and does not confine itself to conditions in Germany only. It is not merely that facts and figures have been brought up to date, however; the new problems that time has produced have been faced and considered. That the bulk of the volume is so little altered is accounted for by the fact that it has been possible to omit sections of material which since the date of the first edition have become easily available elsewhere.

Space may perhaps be taken to mention one of the most interesting of the developments of recent years—and one to which the author gives due attention—namely, the increase in Germany of what may be called insurance instruction. With the movement are bound up in particular three events, all of which took place before the issue of the first edition, but all of which have exercised a great influence since. They are the founding of the Insurance Seminar at Göttingen University in 1895; the rise of the *Handelshochschulen* at the end of the 'nineties; and the formation in Berlin of the *Deutscher Verein für Versicherungswissenschaft* in 1899, to which reference has already been made. The example of Göttingen has been followed within the last few years by several other universities, as well as by the *Handelshochschulen*, and not only are there now recognised courses of lectures dealing with the various sides of the subject—economic, statistical, legal, and mathematical—but examinations are held and diplomas are awarded.

The book presents a rather stodgy appearance hardly attractive to the eye, but possibly that is considered necessary in a series of handbooks of trade and industry. Nor is the manner of treat-

¹ Cf., for example, the new German and Swiss legislation relative to insurance contracts.

ment always in revolt against outward appearances. But it would be ungracious to lay undue stress upon these minor defects. Certainly there is yet to be written a book on the subject which can compare with this work of Dr. Manes.

A. FINGLAND JACK

Theorie und Methoden der Statistik. Ein Lehr- und Lesebuch für Studierende und Praktiker. By AL. KAUFMANN. (Tübingen : J. C. B. MOHR. 1913. Pp. xii + 540. Price 16 marks.)

THIS systematic treatise, by a Russian professor, has been translated into German with some modifications to meet the needs of German students. It is to be welcomed, as making more accessible to other countries knowledge of the lines on which statistical ideas are developing in Russia; it is to be wished that we could also have a translation of Prof. Tchuprow's text-book. The author draws his inspiration from Russian, German, and English writers, and his method in many sections is to collate lengthy quotations from any of the half-dozen authors he favours and adjudge praise or blame; this is interesting enough to the student of statistical thought and informing as to the general trend of opinion, but the result is a more than German prolixity. In this bulky volume only a small part of statistical theory and practice is covered. Within his self-assigned limits the author shows great knowledge, intimate understanding of even the more delicate processes of measurement, and a sound judgment except where mathematical methods are concerned. In his first part, which is consecrated to theory, statistics is limited to mass-observations of human affairs. The foundation of the science is the Law of Great Numbers, which is closely related to the mathematical theory of probability. The treatment of this law is a little irritating, for the author contents himself with unproved mathematical theorems, and is apparently ignorant of Professor Edgeworth's (Germanised as Edgewort) fundamental treatment. As so often happens, one finds rather loose references to the use of a modulus for measuring the stability of numbers, but no consideration of the possible relation of the modulus to a frequency curve which would exhibit the probability of variations of different amounts from the stable position. The author can think clearly and write lucidly, and in the space devoted to the nature of great numbers it would have been possible for him to show in some detail the line of argument which connects mathe-

mathematical hypotheses with the movements of numbers arising from mass-observations.

Though the subject is based on mathematical theory in the first part, it is all thrown over and the exposition is for the entirely non-mathematical reader in the second; the few formulæ given are explained so slightly as to be nearly useless. By this self-denying ordinance, the author cuts out a great many methods (measurement of precision, probable effect of errors, use of the correlation-coefficient) that ought to be known by the students and practical statisticians for whom he writes. It is a serious misfortune that, at the very time when in England, France, and Norway (to name only three countries) very successful applications of mathematical statistical theorems are made in quite simple ways to practical problems, in such an important book as this they should be relegated to the specialist and their utility underrated, and that eminent German statisticians should be quoted as supporting these views.

The main merit of the treatment is to be found in the careful and systematic discussion of the elementary processes of accumulating and working up official statistics. If there is little that is original, there is still much that is illuminating. The inner significance of processes and the exact connotation of terms are subjected to searching analysis. Everyone who has the patience to read through the latter half of the book will find that he has absorbed a good many useful ideas.

A. L. BOWLEY

The Six Panics, and other Essays. By F. W. HIRST. (London: Methuen and Co. 1913. Pp. vi + 271. Price 3s. 6d. net.)

THE six panics which Mr. Hirst describes and discusses are not commercial panics, but war scares. The first three are the panics of 1847-1848, 1851-1853, and 1859-1861, made famous by Cobden's "scathing exposure" of them in his *Three Panics*. Mr. Hirst's fourth panic, the one for which the late Mr. W. T. Stead was largely responsible, took place in 1884, and is now probably the least well-remembered of the six. "It was," as Mr. Hirst says, "not much more than a professional agitation for taxpayers' money which died down as soon as something was forthcoming" (pp. 46, 47); but it is important, he thinks, because "although the results were small in comparison with later performances, the year 1884" marks "the beginning of a most disastrous expansion in naval armaments, in which the provoca-

tive impulse has too often been furnished by Great Britain" (p. 42)—a beginning which led on to what is described as "a most disgraceful chapter in the history of British policy" (p. 58), viz., the "appalling outburst of naval extravagance" of the ten years following 1893.

What the author describes as the "Dreadnought Panic" of 1909 is still comparatively fresh in the public mind, and it is natural that more space should be devoted to this than to the other panics. This chapter contains copious quotations from the speeches in the House of Commons in the debates on the Navy Estimates of March, 1909, and much forcible criticism of the Dreadnought policy, particularly of its development at that time—criticism which, as Mr. Hirst says, has been offered over and over again. It is, however, we think, important that both the facts and the criticism should be placed before the public once more, and we are glad that Mr. Hirst has undertaken the task. An alarm is often remembered long after the fact that it was groundless has been forgotten. It is well, *e.g.*, that we should be reminded that in 1909 Mr. McKenna "admitted it to be possible for Germany to have twenty-one Dreadnoughts on April 1st, 1912"; while Mr. Balfour "believed she might have twenty-five" (p. 79): whereas, as a matter of fact, "when the date arrived Germany had nine!" (p. 79, note).

The sixth is the Airship Panic of the present year.

Mr. Hirst has a good deal to say on the causes of these panics, and we gather that he would probably agree with the Socialist who said that peace would be possible only when it became unprofitable to produce the instruments of war. The object of the book, as its author tells us in his preface, is "not so much to prevent the recurrence of false alarms in the sensational press—for no reasonable man can hope to do that—as to prevent the abominable waste of public money in which a successful panic always ends. It is all-important that the governing classes and the leading statesmen, who are trustees for the nation and for the public funds, should feel ashamed of the hoax which has now been practised upon them so often" (p. v). The modest hope expressed by Mr. Hirst that he may have supplied them with a defensive armour against the arrows of future panic-mongers should be realised if the book receives the attention it deserves.

Certain portions of the book, the author says, have appeared in *The Economist* or elsewhere, but there is nothing to indicate which these portions are, except in the case of the essay on Friedrich List and the German Zollverein, the greater part of

which formed the introduction to Miss Hirst's *Life of List*. We should imagine, however, that the portions previously printed are contained in the eleven essays which form the second half of the book. Most of these are of a rather ephemeral character, and we doubt whether they were all quite worthy of reproduction. They range over a considerable variety of subjects, and do not seem to call for any special comment. There is a vigorous plea for the abolition of the right of capture and prize-money in naval warfare; a striking picture—not at all overdrawn—of the disastrous results of the Balkan War to the country of the victors and its inhabitants; essays on John Bright, English newspapers and their authority, foreign travel, &c. The essays which will be of most interest to readers of THE ECONOMIC JOURNAL are one entitled *Insular Free Trade—Mr. Balfour's Doubts and Anxieties Resolved*, which contains some good criticisms of Mr. Balfour's well-known pamphlet, one on private luxury and public waste, and a very attractive little essay entitled *A Plea for Gardens*. In the provision of gardens of one-eighth to one-quarter of an acre for cottages Mr. Hirst sees "a cure for one of our worst economic and social evils; and it is a cure which will add very greatly to the national wealth. It will not enrich one class at the expense of another; but it will increase the total product and enlarge the national dividend. It will be a source of health and wealth to tens of thousands of poor families, and it will teach the children a most valuable kind of knowledge—the knowledge of gardening, which is the beginning and end of agriculture" (p. 241).

This second half of the book is rather slight, but it is written in a popular style, and the essays are all very readable.

H. SANDESSON FURNESS

Protection Paves the Path of Prosperity: an Exposure of Free Food Folly and Fiction. By THOMAS PENN GASKELL, M.Inst.C.E. (London: King and Son. Pp. xii+147. 1913.)

THE author of this book is a thorough-going Protectionist. Protection is, in his opinion, a better term than Tariff Reform, and he writes of "the disastrous policy of '46" (p. viii). The first six chapters deal in the main with the effect of our Free Trade policy on British agriculture, and with the benefits which he thinks agriculture in France and Germany has derived from Protection. Chapters vii., viii., contain the usual comparisons of the growth of certain British industries with those of France,

Germany, and the United States, and in Chapters ix., x. the author pleads for the ordinary remedies advocated by Tariff Reformers.

The book contains no new facts or arguments, as was rather to be expected at this stage of the controversy. Many of the facts which are brought forward, however, though they would be admitted by most people, do not really help to establish Mr. Gaskell's case, and many of the arguments he uses are not even the best of the old ones. It was hardly worth while to prepare elaborate tables to prove that the supply of home-grown wheat has fallen off since the introduction of Free Trade in 1846, or to show that the acreage under the plough and the numbers engaged in agriculture, as well as their proportion to the population, have declined of recent years. Nor was it necessary to occupy so much space in telling us that some of Cobden's prophecies as to the effect of Free Trade on British agriculture have been falsified.

The author is not quite fair with regard to some of the conclusions he draws from his facts; *e.g.*, he points out that the agricultural population of Germany has declined since 1882, but this is attributed mainly to the increased use of machinery, whereas the falling-off in our own agricultural population he sets down entirely to Free Trade.

Mr. Gaskell does not appear quite to understand some of the most elementary principles of international trade. Here are two specimens of the kind of statement he makes:—

"At the present time the average excess of wheat imports, due to the diminished yield at home, is about 10,000,000 quarters a year, and as the present price of imported wheat is about 35s. a quarter, it may be said that £17,500,000 per annum is being spent abroad instead of being allowed to fructify at home in the shape of wages and profits to our agriculturists" (pp. 17, 18).

"The United Kingdom has in its midst to-day the best markets in the whole world. Ought not the British citizen to have the first claim on his own markets, and ought the foreigner to be allowed the use of them without any payment whatever?" (p. 120).

In Chapter ix. Mr. Asquith is quoted as saying that an import duty on corn, imposed by a country that is obliged to get the bulk of its supply from outside its own shores, will raise the price of the whole supply by at least the amount of the duty. It is no answer to this to quote from the 1909 Blue Book on British and Foreign Trade and Industry to show that the price of wheat

in the United States was no higher than in England, although there was in the United States an import duty of 8s. 7d.

In short, this is a book which will not, we think, do much to help the cause of Protection.

H. SANDERSON FURNISS

Economics of Business. By NORRIS A. BRISCO, Ph.D., F.R.H.S.
(New York: Macmillan Company. 1913. Price 6s. 6d. net.)

It is not a little remarkable that most of the books of a similar description to Dr. Norris A. Brisco's *Economics of Business* have been published in the United States and written by American authors. Accordingly, it seems not unreasonable to suppose that the demand for such literature is greater in the States than in this country. This would be a gloomy reflection to the Britisher, if he failed to take into account the quality, as well as the quantity, of the literature in question. The truth is that while works of this description are unquestionably of interest to those who are already well acquainted with their subjects, they are but a feeble guide to the uninitiated. Nor is this altogether surprising, when Dr. Brisco candidly admits that he considers the most significant of all contributions to this subject to be those that have been made by successful business men recounting their own experiences. This being his view, it is to be assumed that, in the work before us, he has given the greatest weight to utterances of this description, and founded upon them the majority of his statements and his theories. Yet, surely, it must be obvious that very few successful business men are able to diagnose the causes of their success with even approximate accuracy; or, alternatively, that, however willing they may be to secure an advertisement for their personalities, they labour under no overwhelming anxiety to "give away" the causes of their success. The intelligent observer is often able to read between the lines of such utterances, and to gather from them an occasional hint that may prove suggestive; but they can hardly be said to constitute the basis of any reliable text-book. All the same, and in spite of its manifest superficialities, the work before us has at least the redeeming virtue of being eminently readable—a quality which many more weighty volumes can lay no claim to. Accordingly, it may yet justify its existence by demonstrating that it is possible to write on such subjects as economics and business management, and at the same time to be interesting. But the author's obvious lack of acquaintance with any of the more

recently published British works on the same and kindred subjects, combined with the fact that he apparently addresses himself exclusively to American conditions whenever he is at all practical, naturally imposes considerable limitations on the utility of his work in this country. At the same time, it may be stated that a distinct demand is growing up here for a text-book, written in plain non-technical language, on some such lines as the one before us. We can only regret that, owing to the defects to which we have drawn attention, it seems both unlikely and undesirable that Dr. Brisco's *Economics of Business* should be held to meet that demand.

LAWRENCE R. DICKSEE

The Standard Rate in American Trade Unions. By DAVID A. MCCABE, Ph.D. 1912. Pp. 249. (Johns Hopkins University Studies in Historical and Political Science.)

Admission to American Trade Unions. By F. E. WOLFE, Ph.D. 1912. Pp. 181. (Johns Hopkins University Studies in Historical and Political Science.)

The Government of American Trade Unions. By THEODORE W. GLOCKER, Ph.D. 1913. Pp. 237. (Johns Hopkins University Studies in Historical and Political Science.)

THESE detailed studies contain a mass of information with regard to the methods and objects of American trade unions. Dr. Glocker has had the most interesting subject to deal with, and he gives a vivid impression of the problems of trade union government. We recognise many features which are familiar in this country. For instance, in America, as here, there is unending conflict between the experienced officials on the one hand, and on the other, the stalwarts who uphold the "down tools policy" and the literal application of extreme democratic principles in every department of trade union administration. The problem also as to whether the executive board of the union shall consist of the permanent officials, or of members working at their trade, in different towns, who act as a check on the officials, or whether, as a third alternative, the "governing branch" plan shall be adopted, has exercised hundreds of American trade union administrators, in much the same way as in this country. But, on the other hand, there are some striking differences between the constitutional development of English and American unions. Decentralisation is much more prevalent in America. (It is, for

instance, noteworthy that the term "local union" is constantly occurring, where, under English conditions, we should speak of a branch). It is difficult to decide from Dr. Glocker's study whether the lack of centralisation is due to the large geographical area over which many American unions extend, or to the fact that trade unionism is really still in a more primitive condition in America than in England. Dr. Glocker himself contrasts the history of the use of the referendum in American and in English trade unionism. In America trade unionists are in the forefront of the widespread movement for the increased application of the referendum to State and municipal politics. The sources of the trade union constitution, and the relations between Canadian and American trade unionism, are among the many other interesting points with which Dr. Glocker deals.

Boys and women are a source of many burning problems in connection with the right of admission to trade unions in America as in England. It is well known that workmen in America pass much more easily from one class of work to another. It is, therefore, only natural to find that where a more or less formal apprenticeship is insisted on by American unions, it is often only required to be of three or four years' duration, as against the five or seven which are to be found in the rules of so many English unions. It is interesting to find that one or two unions, such as the electricians', have developed quite elaborate systems of testing the competency of workmen who apply for admission; while others, such as those of the marine engineers, plumber, and barbers, recognise and support the system of government certificates of efficiency, which are established in these trades. Questions as to the admission of negroes and of alien immigrants are constantly causing controversies in the unions. It appears to be common for local unions to refuse to admit negroes, while the central authorities strive hard to uphold their equal rights. Dr. Wolfe concludes that the monopolistic "closed union" is a rare phenomenon.

The details of problems connected with the form of standard rates, and particularly piece rates, are very largely the outcome of almost inevitable circumstances connected with the nature of various trades. Dr. McCabe does not give us a very clear impression of the extent to which standard rates really are observed in the various trades. It is true that it is exceedingly difficult to do this; but unless we know it the paper decisions and demands of unions may often give a false impression of the true prevailing conditions. The study of the area of the standard rate is perhaps

the most useful part of Dr. McCabe's book. He notes that the area of piece rates tends to be much larger than that of time rates. The statistics relating to the attitude of the unions towards piece and time rates are also particularly valuable, and may be usefully compared with the similar statistics compiled by Mr. and Mrs. Webb.

F. KEELING

Progress and Uniformity in Child-Labor Legislation: a Study in Statistical Measurement. By WILLIAM F. OGBURN, Ph.D. (Columbia University Studies in History, Economics, and Public Law, No. 121. 1912.)

THE development of international labour legislation, and the activity of central governments in every country as "gadflies" stirring local authorities or subordinate legislatures to higher standards of efficiency, render the study of the statistical methods of measuring social progress of directly practical importance. Anyone who has made even the slightest attempt to compare the details of factory legislation in different countries must realise the extraordinary difficulty of forming comparisons of the real effectiveness and not merely of paper requirements. The same problem exists in connection with the administration of the Employment of Children Act in our own country, or in connection with the labour laws of the American States, which constitute such a formidable volume in the editions issued by the American Bureau of Labor. Dr. Ogburn has certainly succeeded in rendering the labour legislation of the United States as a whole more intelligible to the student. His tabular statements make it possible to form some estimate of the rise in the standard of regulation throughout the country; and his methods are worthy of study by anyone who is endeavouring to record the action of a large number of local authorities or different governments in dealing with a given problem.

F. KEELING

The Naval Mutinies of 1797. By CONRAD GILL, M.A. (Manchester University Press. Price 10s. 6d. 1913.)

APART from its historical value, this book has some special interest for economists in the curious similarity of the 1797 mutinies to modern industrial strikes.

There were numerous causes through which a spirit of rebellion was fostered in the Navy and brought to a head at the close of

the year 1796. But the most important Mr. Gill shows to have been economic. Since the time of the Protectorate, the naval pay-schedule had not been changed. On the other hand, the cost of living had risen in that period by at least one-third. Moreover, the rations of food supplied were of wretched quality, while even from them, such as they were, there was much "leakage," as well as from the medical stores and other issues intended for the comfort of the men. Thus the sailors had a very real grievance; and their resentment against such treatment was aggravated by the fact that two years previously, while they were neglected, the Army pay had been substantially increased; so that they imagined, not without reason, that the officials at the Admiralty were both ignorant and careless of their condition. They resolved, therefore, to take the remedy into their own hands, and the method adopted was to refuse to weigh anchor until the pay of a seaman should be augmented to about a quarter as much again as it then was and their other grievances redressed; finally, the King's pardon was demanded for all concerned.

Of the two mutinies, the first, at Spithead, was quickly successful; the Nore mutiny which followed was protracted and ended in an inglorious surrender. The Spithead mutineers displayed remarkable efficiency throughout. There was, of course, no time or means to form a trade union organisation. But this difficulty was solved in a simple way by taking over the naval organisation as it stood, some of the officers even (who showed surprising wisdom in a difficult position) being retained at their duties, and only those sent on shore who were particularly detested by the crews. Supreme command devolved upon a council of delegates chosen for the whole fleet, and upon special committees for the various units. Obedience to their orders was absolute, and the daily routine continued as usual. Meanwhile, the delegates bargained with the Admiralty. No doubt their contentions gained force from the fact that French and Dutch expeditions were maturing at Brest and the Texel; otherwise they must easily have been starved into submission as were the Nore mutineers in the sequel. But the threat of hostilities and the justice of their demands gave the mutiny the support of public opinion, and Pitt's Government, after some haggling, not unwillingly conceded what was asked. Shortly afterwards dissensions again broke out in the Channel fleet owing to a suspicion, not uncommon in trade unions to-day, of Government good faith. As soon as the new changes were embodied in an Act of Parliament, however, the seamen returned to duty well-satisfied.

The mutiny at the Nore was no more than an imitation of Spithead. But in this case personal ambition drove the leaders on to make more and more preposterous demands, which soon alienated the sympathy not only of the public but of their own supporters as well. By adopting a firm attitude and cutting off supplies the Admiralty succeeded in forcing an unconditional surrender.

The Spithead mutiny was in every way a model strike. Violence was avoided under the strong rule of the delegates, and the latter worked harmoniously because they worked only for their electors' interests. To take their own words from a dignified communication to the Admiralty, "We know when to cease to ask as well as to begin, and we ask nothing but what is moderate and may be granted without detriment to the nation or injury to the service." Clearly the sentence quoted is in the spirit of a trade dispute, not of a treasonable revolt. It remained for Parker at the Nore, by his self-seeking insolence, to drive those of his supporters who were deeply implicated into the arms of a foreign country.

Mr. Gill draws no moral from his account, but it is not impossible that in both mutinies there is a warning for the present day. In the British Navy, no doubt, modern methods of discipline make the fear of a mutiny practically negligible. But in the event of war a big union of colliers and railwaymen might very well have a dangerous measure of power, and use it in the fashion of the 1797 mutineers.

F. M. HARDMAN

NOTES AND MEMORANDA

THE CONSTRUCTION OF INDEX NUMBERS TO SHOW CHANGES IN THE PRICE OF THE PRINCIPAL ARTICLES OF FOOD FOR THE WORKING CLASSES.

THIS paper deals with some of the more striking difficulties encountered during a recent attempt to obtain a series of retail food index-numbers for London. The Board of Trade, in their *Annual Abstract of Labour Statistics*, give each year index-numbers of the retail price of the principal articles of food in London, but they unfortunately do not indicate the methods which they adopt to overcome the difficulties encountered. In passing, I should like to point out that in spite of the fact that it is expressly stated by the Board that these index-numbers are based upon returns for London only, they are constantly quoted as applying to the whole of the United Kingdom. The Board of Trade have now shown in their Report of the *Cost of Living Enquiry for 1912* that the increase in retail prices between 1905 and 1912 in the different towns was surprisingly variable; the extreme range being from 7 per cent. in the case of Portsmouth to 20 per cent. in Stockport.

The value of index-numbers depends not only upon the accuracy, but also upon the number, of the returns used in their construction. It is therefore a little disconcerting that year by year the Board have published in their *Abstract of Labour Statistics* the food index-numbers referred to above, without stating the number of firms making returns to them for this purpose. In the Report of their *Cost of Living Enquiry for 1912*, however, it is stated that these figures are based upon a single record, namely, upon the only available continuous series of prices reaching as far back as 1892. I can quite appreciate the difficulty experienced in obtaining many continuous returns of prices reaching as far back as this year, but this is surely no reason why the index-numbers for recent years should also be based upon a

single record. It is only fair to the Board to state that between 1905 and 1912 the general increase in prices, according to these index-numbers, was practically the same as that shown for London by the two "Cost of Living" Enquiries, for which returns, from a large number of firms were obtained; but for individual commodities there was in many cases a marked disagreement between the two results, these differences neutralising one another on calculation of the final figure. It is, also, to be regretted that in these "Cost of Living" Reports the Board do not state the number of returns upon which the different figures are based, so that it might be possible to judge of their relative merits.

Index-numbers of retail food prices can be based either upon weekly or monthly records of the prices charged by the retailers for the principal articles of food, or upon the prices paid by the consumers, *i.e.*, upon family budgets. Owing to the great difficulty experienced in obtaining accurate family budgets, and the enormous labour involved in obtaining a sufficient number to give reliable information, the first alternative is most certainly to be preferred.

The next point to be determined is whether the prices charged by firms dealing with working-class and middle-class customers respectively change in the same way; in other words, whether we can use records from both types of firms indiscriminately in determining the change in the cost of living for the working classes. Without much more data than are at present available it is impossible to decide anything definitely on this point; as a result of my own investigation, I came to the conclusion that, although for individual commodities the average change in the prices charged by the two types of firms was not the same from year to year, the general level of retail prices as a whole in the two cases showed similar variations over the particular period studied. Until more definite information is available on this point, it would probably be wiser to treat separately the returns from the two types of firms. Incidentally, it is much easier to obtain returns from middle-class firms than from firms dealing with working-class customers.

It has already been stated that in order to calculate reliable index-numbers for a given commodity, it is necessary to obtain returns from a number of firms. To illustrate this point I have given in the following table index-numbers for bread obtained from five London firms, three dealing with middle-class and two with working-class customers. I have selected these from a number of firms making returns during my recent investigation,

firstly, because they were able to give me the date and extent of every change in price which took place during the period studied; and secondly, because, with the exception of Firm E,¹ their trade extends into practically every district in London. Firm A has over 150 branches, Firm B over 100 branches, while Firms C and D serve customers all over London. I should therefore have supposed that the index-numbers based upon these returns would have agreed very closely; but an inspection of the table shows that this is not the case, even for firms dealing with the same class of customer; to take a single example, for 1904 the figures for Firms A and B are more than 7 per cent. higher than the figure for Firm C. Similar divergences were also found for other

Index Numbers of the Retail Price of Bread in London, 1900-1911.
(Average 1900-1911=100.)

Year.	Middle Class Firms.			Working Class Firms.	
	Firm A.	Firm B.	Firm C.	Firm D.	Firm E.
1900 ...	94	96	95.5	95	98
1901 ...	91	96	95.5	93	98
1902 ...	94	96	95.5	96	98
1903 ...	98	96	95.5	99	98
1904 ...	103	104	95.5	101	99
1905 ...	103	96	95.5	99	101
1906 ...	100	96	95.5	96	98
1907 ...	103	96	103.0	98	95
1908 ...	104	104	112.0	107	107
1909 ...	109	117	112.0	110	110
1910 ...	104	108	103.0	107	102
1911 ...	100	100	99.5	99	98

commodities, which suggest that the prices charged by different firms for the same commodity do not vary in the same way, and that to obtain reliable results index-numbers must be obtained from as many firms as possible, and the mean taken as the final figure.

In obtaining these final figures the question of weighting the different index-numbers according to the relative importance of the firms in question must be considered, although in practice it is very difficult to determine the particular weight to be given to any individual firm. The Board of Trade in their "Cost of Living" Enquiries, give what they call the predominant price of the different commodities in the various towns. They explain that the predominant price is neither the "minimum" nor the

¹ The trade of firm E is confined to one district of London, but it is so extensive in that district that it fixes the price of bread for the whole neighbourhood.

"average price," but the "price at which most working-class people buy." If the Board had selected either the "minimum" or the "average price" the matter would have been quite clear; but as it is we are naturally anxious to know the statistical method employed in arriving at the predominant price, a subject upon which the Board of Trade give us no information. On the face of it there appears to be room for too much personal equation for this predominant price to be a really satisfactory measure. It may be observed that even if the predominant price could be accurately determined it is possible that it might not lead to really reliable index-numbers being obtained, since the price at which most working people buy may be a measure rather of the spending power of the working classes than of the actual level of retail prices. This naturally leads on to the larger question of what we really mean by changes in the cost of living. Are we simply concerned with changes in the price of food and rent as such, or must we make allowances for changes in the demands of the working classes consequent upon an improved standard of living? Practically, this point is very important in dealing with the question of rent, and I am not satisfied that it is unimportant in dealing with food; but a detailed discussion of it is beyond the scope of this paper.

The collection of family budgets is a necessary stage in the construction of food index-numbers in order to determine the relative importance of, and consequently the weights to be assigned to, the commodities most commonly consumed by the working classes. In 1904 the Board of Trade collected about two thousand such budgets, and have used the results in the calculation of their Retail Food Index-Numbers. Fresh series of family budgets should be periodically collected, as the relative amounts spent on the different articles, and possibly the articles themselves may change in the course of time.

Clearly, the kinds of the different commodities must not, as a rule, be changed during the course of an investigation; for example, Devonshire butter one year must not be compared with Australian butter the next, but it does not necessarily follow, even if this is the case, that the actual quality of the kinds studied will remain constant. Many examples can be given of changes having taken place in the quality of what is, to all intents and purposes, the same kind of article from the consumer's point of view. For instance, during the past twelve years, owing to more scientific methods of thawing and freezing, the quality of the foreign mutton sold in this country has steadily improved; while,

on the other hand, that of foreign beef has gone down, owing to the fact that the supply from North America has practically ceased, and its place has been taken by a poorer quality coming from the Argentine. Since we are solely concerned with any changes that may have taken place in the price that the working woman has to pay for the necessary articles of food, we can ignore the more subtle differences in quality. If, however, the change in quality is sufficiently marked to force the housewife to substitute one kind for another, then we must make a similar substitution in calculating our index-numbers, and change from kind to kind, notwithstanding what has already been said. If, on the other hand, the change in quality is not sufficiently marked, it does not seriously affect our problem, and in this case I should suggest that the index-numbers need not be modified to show such changes in quality, although a note to the effect that they have taken place might be inserted. It may be observed that if we were concerned with the change in the price of articles equally nutritive and equally palatable, these changes would in theory have to be allowed for, although practically it would be an extremely difficult matter.

These suggestions of methods of dealing with changes in quality are admittedly quite tentative, and this subject must receive much more detailed consideration before reliable index-numbers can be obtained.

A special difficulty arises in connection with meat and bacon, owing to the fact that the consumer is able to purchase a variety of different cuts and joints. In constructing index-numbers must the change in the price of all joints be studied, or can a selection be made? It would appear to be unwise to make anything like a small selection of joints, for the following reason: when the wholesale price of meat advances by a small amount, the retailer need not increase the price of all joints, so he naturally selects for this purpose the joints for which there is most demand. Should these particular joints be those selected for inquiry, the price of meat will appear to fluctuate too much and *vice versa*. If, however, the change in the average price per lb. of all joints sold is used instead, the joints, of course, being kept the same during the investigation, those joints which frequently fluctuate are combined with those which tend to remain constant in price, and the real change in the price of meat as a whole is more likely to be obtained.

The question of the base to be used in calculating index-numbers must now be considered. The interpretation put upon

index-numbers, especially by persons not used to dealing with figures, is often greatly influenced by the base chosen, although the actual percentage increase or decrease over the whole period, and from year to year, is quite independent of the base. If a single year is chosen, and if the figures for that year are not very accurate, all the other index-numbers are, for comparative purposes, affected, and consequently, when the figures are contrasted with index-numbers prepared by other observers, they may appear to differ more markedly than they do in reality in consequence of this error. This question has been dealt with by Dr. A. L. Bowley,¹ Mr. A. W. Flux,² and others, and the consensus of opinion seems to be that it is better to choose as a base the average of a number of years as being less subject to error. I should be inclined to choose as a base the average of the whole period, so that the index-numbers for the different years simply measure deviations from the mean of the period studied.

In the accompanying diagram (p. 625) I have plotted three series of general index-numbers of retail food prices for London for the period 1900-1910. These general index-numbers were prepared by combining the index-numbers for the separate commodities, each commodity being weighed according to the extent to which it enters into the consumption of the average working-class family. One series was prepared by the Board of Trade,³ another by Dr. A. L. Bowley,⁴ and a third by myself.⁵

In the first case, the year 1910 has been taken as a base. According to this diagram, it would appear that while Dr. Bowley's index-numbers agree very well with my own for the whole period, those prepared by the Board of Trade were too low from 1900 to 1907. In the second case, I have taken the year 1900 as base, and here it would appear that although again Dr. Bowley's and my own index-numbers agree very well, the Board of Trade figures are too high for the whole period with the exception of the year 1900. In the last diagram the average of the years 1900-1910 has been chosen, and here the three series of figures show the best agreement; from 1901 to 1907 the three series agree very well indeed, but the Board of Trade figure for 1900 is too low, while those for 1907-1910 are too high. The percentage increase over the whole period remains unchanged

¹ *Elements of Statistics*.

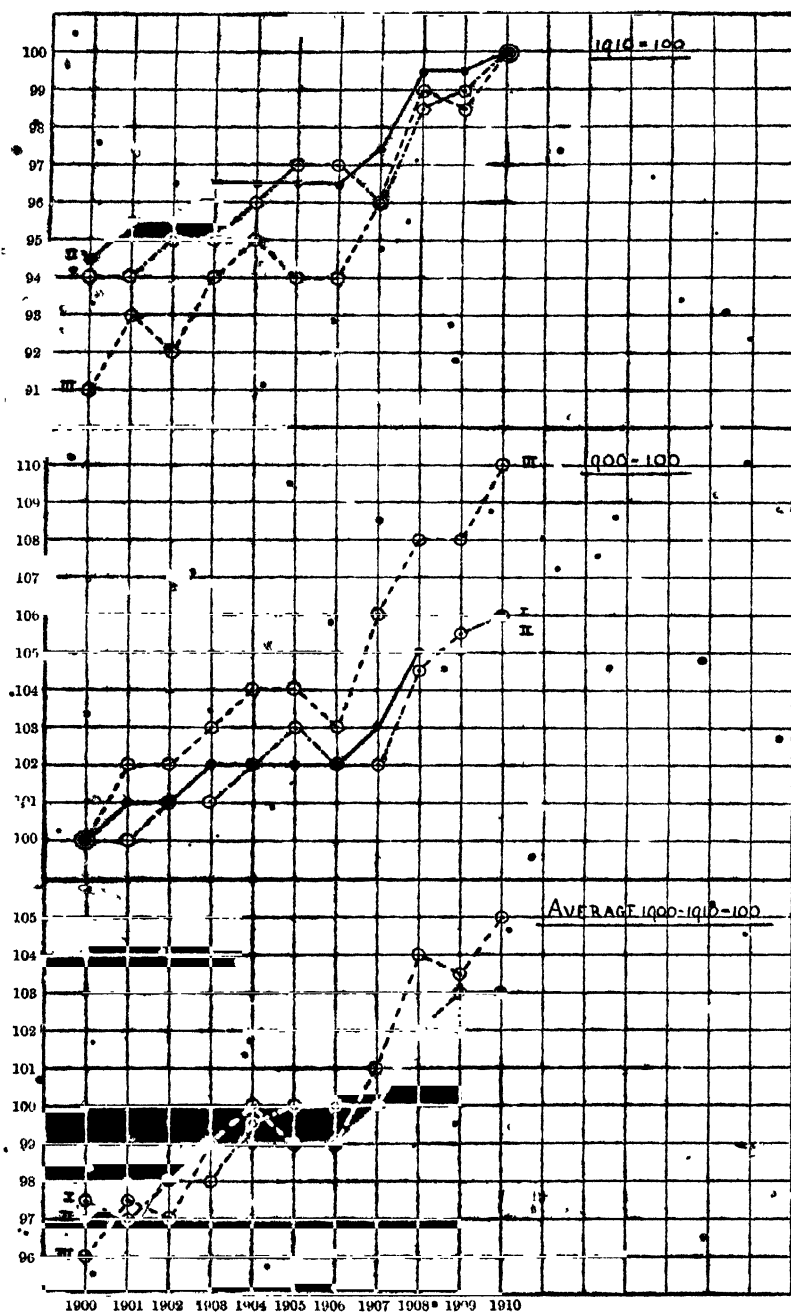
² "Modes of Constructing Index Numbers," *Quarterly Journal of Economics*, 1906-1907.

³ Taken from "Fifteenth Abstract of Labour Statistics."

⁴ *Daily News*, October 9th, 1911.

⁵ *Journal of the Royal Statistical Society*, Vol. LXXVII.

GENERAL INDEX NUMBERS OF RETAIL FOOD PRICES IN LONDON, 1900-1910.



I F. Wood's Index Numbers.
II Dr. Bowley's Index Numbers
III Board of Trade Index Numbers

whichever base is chosen, except for small errors due to approximations, and for the period studied, 1900-1910, amounted to about 6 per cent. according to Dr. Bowley and myself, and from 9-10 per cent. according to the Board of Trade.

These three diagrams will serve to illustrate the following point. When a single year is used as a base and index-numbers prepared by different observers are compared, the actual year selected as a base absolutely determines for which years the different series of figures shall appear to agree; while, if the average of the whole period is taken, it is possible to say actually for what years the series differ, since, taking our own particular case, the index-number for any year, simply measure the difference between the level of retail prices for that year and the average for the whole period studied.

TABLE II.—General Index Numbers of the Retail Price of Food in London, 1900-1910.

Year.	1910 taken as Base (1910=100).			1900 taken as Base (1900=100).			Average 1900-1910 taken as Base (Average 1900-10=100).		
	Dr. Bowley's Index Numbers.	F. Wood's Index Numbers.	Board of Trade Index Numbers.	Dr. Bowley's Index Numbers.	F. Wood's Index Numbers.	Board of Trade Index Numbers.	Dr. Bowley's Index Numbers.	F. Wood's Index Numbers.	Board of Trade Index Numbers.
1900	94.5	94.0	91.0	100.0	100.0	100.0	97.0	97.5	96.0
1901	95.5	94.0	93.0	101.0	100.0	102.0	98.0	97.0	97.5
1902	95.5	95.0	92.0	101.0	101.0	102.0	98.0	98.0	97.0
1903	96.5	95.0	94.0	102.0	101.0	103.0	99.0	98.0	99.0
1904	96.5	96.0	95.0	102.0	102.0	104.0	99.0	99.5	100.0
1905	96.5	97.0	94.0	102.0	103.0	104.0	99.0	100.0	99.0
1906	96.5	97.0	94.0	102.0	102.0	103.0	99.0	100.0	99.0
1907	97.5	96.0	96.0	103.0	102.0	106.0	100.0	100.0	101.0
1908	99.5	98.5	99.0	105.0	104.5	108.0	102.0	102.0	104.0
1909	99.5	99.0	98.5	105.0	105.5	108.0	102.0	103.0	103.5
1910	100.0	100.0	100.0	106.0	106.0	110.0	103.0	103.0	105.0

This paper has only touched upon the most obvious difficulties encountered in the construction of retail prices index-numbers; but the whole question needs careful consideration if reliable and accurate figures are to be obtained.

FRANCES WOOD

THE WORKING OF THE INSURANCE ACT.

Report for 1912-13 on the Administration of the National Insurance Act, Part I. (Health Insurance). [Cd. 6,907.] 1913. 660 pp. Price 2s. 9d.

First Report on the Proceedings of the Board of Trade under Part II. of the National Insurance Act, 1911. [Cd. 6,965.] 1913. 82 pp. Price 9d.

I.

OPINIONS may differ as to the merits and probable results of the Insurance Act, but its staunchest advocates must have been a little surprised at the comparative ease with which it was brought into force. A warm tribute of praise must be paid to those to whom this achievement is due. There has not been much active opposition to the Act: violence has been mostly of words. But the technical difficulties were legion. The baldest statement of what has been done is eloquent testimony of the work which must have been accomplished. Only a few years ago there were practically no indications of compulsory insurance, and he who would have prophesied its existence on anything like its present scale would have been ignored as a visionary. It was without precedent in this country, the conditions differing in this respect from those in Germany, where compulsory insurance already existed on a considerable scale when Bismarck launched his schemes. The principle of compulsory deduction from wages was entirely new to a large proportion of the population. A large proportion, also, were ignorant of insurance of any kind. And now practically every wage-earner is insured, compulsory deductions are made from their wages, employers contribute automatically, benefits are distributed, and, outwardly at least, with few exceptions, all this is taking place with a smoothness which might seem begotten of years of experience.

This facility is due to a large extent to the ingenious machinery of the Act, which, with liberal baits, called into play the hot competitive activity of the different societies—friendly, trade union, and, not least, industrial.

Vigorous measures were adopted to scatter knowledge of the Act. For a season the Commissioners poured publicity. 33,000,000 leaflets were distributed. It would have been an interesting study to have ascertained to what extent this torrential activity proved of service.

Foremost among the obstacles to be overcome were the disagreements with the doctors, which, however, were matters for

the Government rather than for the Commissioners. The 'hive' was sufficiently well sweetened to attract most of the doctors. Thus, in England from 80 to 90 per cent. of those in industrial practice are on the panels. In very few places has it been necessary to make exceptional arrangements for general service.

It is interesting that in nearly all places doctors have adopted payment by capitation, that is, a definite sum for each person on their books. Practically in the Manchester and Salford district alone has payment by attendance been adopted, that is, the division of the amount available among the doctors according to services rendered. In Kent, where this latter practice was first adopted, the doctors later gave it up for the capitation system. Payment according to services rendered calls for higher medical organisation than payment by capitation. The experience of Germany suggests that when the British doctors become more organised payment by attendance will be more widely adopted.

It is not possible to do more than refer briefly to some of the other important questions with which the Commissioners have had to deal. As was to be expected, it is with the stragglers of the industrial army, with out-workers and with casuals, that some of the principal difficulties have arisen. A committee, presided over by Sir Ernest Hatch, considered a number of questions touching out-workers, especially the position of married women, and later a very full inquiry was held by Mr. Pope. It was decided that married women should not be excluded from the Act. It was found that in some trades steps had already been taken to displace single women out-workers for married women, on the assumption that the latter would not come under the Act.

The basis on which contributions should be paid formed another difficulty with out-workers. They sometimes earn so little in a week that, if required to pay the weekly rate regardless of earnings, an utterly disproportionate sum might be absorbed for provision against ill-health as compared with what was left for health. To meet this difficulty a system was devised by which, subject to certain conditions, a unit of earnings was fixed as equivalent to a week's work, and contributions were paid accordingly. The Commissioners thus followed a system which had been adopted at Ghent, if I remember rightly, in another connection. The fixing of the units for the different trades must have occasioned much labour.

Many interesting particulars are given respecting casual labour. There were many initial difficulties in the insurance of this class. An employer taking on a man for a day did not

welcome the prospect of having to pay contribution for a week. A labourer, correspondingly, might find a difficulty in getting work unless his card was already stamped. It is stated that in some coal yards employers who used casual labour have found it possible to engage regular workers. In other cases arrangements have been made whereby the liability of a group of employers has been pooled. In some instances, this has been done through the labour exchange—*e.g.*, dock labour at Liverpool and Goole, cloth porters at Manchester. In others, the arrangements have been made privately between the employers or in conjunction with the men's societies—*e.g.*, trimmers and teemers in the North of England, trimmers at Swansea, bakers at Dundee. Arrangements of this kind may form points around which definite schemes for decasualisation may crystallise, though the problem is not so easy of solution as the comfortable doctrines of the armchair sometimes suggest.

It is, of course, too early to make any comments on the results of the Act. But there are already a number of outstanding facts. The number of deposit contributors is much below what was expected. For England, the estimate was from 800,000 to 900,000: the actual number is 320,000. It was contemplated that deposit contributors would largely be persons broken in health. It appears that, in fact, most persons are deposit contributors from ignorance or misapprehension, or because they cling to a patrician aloofness out of keeping with their plebeian needs.

The deposit contributor was expected to be one of the main difficulties of insurance. The difficulty has largely disappeared: the societies were so eager to swallow members that they did not scrutinise the quality too carefully. It is open to doubt whether the real social problem at the bottom of the whole question has been eased. Indeed, it might be contended that the very scattering of the difficulty will make it more elusive, and render more troublesome any social surgery that may be necessary. And the societies themselves may pay the penalty of their eagerness in the drain on their funds.

The number of the voluntarily insured is very much smaller than was anticipated. This may be due partly to prejudice, partly to ignorance. It has to be remembered also that the compulsory net is cast wide.

The industrial societies have secured a large number of members, thanks particularly to the active agents crying their wares. Of the total 10,300,000 members of approved societies in

England, 4,600,000 belong to friendly societies, 1,200,000 to trade unions, 3,800,000 to industrial societies, and 600,000 to collecting societies.

The Commissioners have been compelled to improvise and to adapt, and they have shown a wealth of initiative and a readiness to change their decrees to meet new circumstances which the rigid conditions of their existence do not often allow to Government departments. The work of the Commissioners, ranging as it does from the skilled artisan to the casual labourer, from the pack shepherd of the border district to the daily charwoman, should throw a flood of light on economic conditions. Their first report does not make easy reading—more “scientific” reports are promised—but it contains a large amount of very interesting material. It was undoubtedly wise to give in this first report a detailed account of the measures which have been taken to initiate the biggest experiment of recent times, an experiment which penetrates deep into the domestic life of the people. We must wait years before we can hope rightly to gauge the results of the experiment, before we can judge to what extent it mitigates and relieves sickness and invalidity, and, still more important, to what extent it prevents these misfortunes and contributes to the up-building of a healthier and sturdier race.

II.

The introduction of the scheme of insurance against unemployment was a much simpler task than that of the insurance against sickness and disablement. But in some ways it is the more significant. For compulsory insurance against sickness and disablement there were many precedents; for compulsory insurance against unemployment, on anything approaching the scale attempted in this country, there were none.

About 2,250,000 persons are insured. 25 per cent. of these are members of associations who have made arrangements with the Board of Trade for administering unemployment benefit; 75 per cent. are directly under the administration of the Board of Trade. Less than one-fifth of the total number were previously insured against unemployment.

There have been 560,000 claims for benefit during the six months ended July, 1913. These claims were made by about 400,000 separate persons, a number of persons having claimed more than once. Contributions by workmen and employers are being paid at the rate of about £1,800,000 a year; in addition, the State grants about £600,000 a year. The outgoings for the period under review have been at the rate of about £700,000 a

year. There was a reserve of over £1,600,000 on the 12th July, 1913; it must be remembered that contributions were paid from July, 1912, benefit only from January, 1913.

Under the Act, 10 per cent. of the gross income is to be paid as an appropriation in aid of administrative expenses. There is no estimate in the Report of the actual expenses. They are extremely difficult to estimate because the work is so closely bound with that of the labour exchanges. But it seems desirable that an endeavour should be made to arrive at an estimate, because the cost of administration will be an important factor in judging the scheme.

In addition to the compulsory insurance, the Act provides for payment of subsidies to voluntary insurance. 275 unions, with over 1,000,000 members, came under this provision. Over one-half of the members were also compulsorily insured. A considerable number of compulsorily insured workmen, who were not insured before the passing of the Act, have since become voluntarily as well as compulsorily insured.

Reference can be made to only a few of the interesting topics raised by the Report, which is well prepared. The unemployment claims have been below the actuarial estimate, even allowing for the exceptional industrial prosperity. Unemployed men generally found work readily: during a period for which particulars are given, in 30 per cent. of the claims work was found within the first week of unemployment. The large number of claims, however, despite the great boom in trade, is striking.

A smaller proportion of the compulsorily insured has belonged to the building trade than was expected. This favours the insurance fund, for unemployment is higher in this trade than in others, and claims from workmen in it have been heavier than from workmen in other trades. Claims from the London district have been much higher than from most other districts. This, of course, has been partly because of the large proportion of workmen of the building trades in the metropolis. But the London claims have been heavier in other trades also. The experience of the insurance claims should throw much instructive light on the variations of unemployment in different trades and districts.

Repeated claims for benefit have been made in a large number of instances. In a week at the end of June, 1913, 57 per cent. of the applicants had already claimed once or more times, 29 per cent. had claimed twice or oftener. This brings us face to face with the problem of a residuum of frequently unemployed persons. Of the claims to benefit disallowed, nearly one-half

were rejected because the claimants had not been employed in their trade for the necessary twenty-six weeks.

The Report contains many other matters of deep interest (including detailed information respecting the Liverpool scheme for the decausalisation of dock labour). As stated in the Report, the insurance has been in force for much too short a time to justify conclusions. The industrial sky has been so bright that almost any scheme would have thriven. It is fortunate that the new project was launched at a time when a large reserve would be automatically accumulated. But it is not difficult to see that serious problems will arise. It is open to question whether the method of verifying unemployment will be found adequate when work is not so readily to be obtained. During times of depression large numbers will probably fall out of benefit and continue unemployed, and a demand will arise, a demand the more clamant and insistent because coming from persons who have paid contributions, for some form of special assistance. But even the most enthusiastic advocates of compulsory insurance will not claim that it is more than one step in dealing with the problem of unemployment.

I. G. GIBBON

OFFICIAL PAPERS.

Report of an Enquiry by the Board of Trade into Working-Class Rents and Retail Prices, together with the Rates of Wages in Certain Occupations in the Principal Towns of the United Kingdom in 1912. [Cd. 6955.] 1913. Pp. lxxii + 396. Price 4s. 11d.

THIS Report is valuable in two ways. It contains a mass of useful and interesting information in regard to rent, the retail prices of working people's necessities of life, and the rates of wages in three important trades—building, engineering, and printing. But in addition to all this, the results under each heading are compared with those of the similar enquiry of 1905. In both cases the report covered conditions in eighty-eight towns in the British Islands, and the tables in the present volume provide detailed figures as well as index-numbers and percentage changes for each subject of investigation. In every case, moreover, London and the provincial towns are considered separately.

In regard to the rents of houses, not only are the prevailing amounts given, but the different types of houses are described. In London, whether in the county area proper or beyond, the striking fact is the many instances of sub-letting, though, of course, this is more prevalent in the older areas than in the

newer. In the provinces there appears to be less sub-letting, and the type of house is different from that of London, excepting only the "Newcastle" flat, which is found in the Tyneside district.

Rents in London are very much in excess of those in the provinces. Of all the provincial towns, Newcastle shows the highest rentals and Macclesfield the lowest. If the index-number for London be taken as 100, that of Newcastle is 84, and of Macclesfield 38.* Taking the British Isles as a whole, London being left out, we find two groups roughly distinguished, one highly rented and the other with low rents. The Northern counties, the Southern counties, Wales, and Scotland belong to the first division; Yorkshire, Lancashire, Cheshire, the Midland and Eastern counties, and Ireland to the second. In addition to this geographical survey, it is important to notice that there is in general a fall in the level of rents as we pass from the larger to the smaller towns.

But what of the changes since 1905? The Report here is exceedingly useful. The general results concerning rents may be thus summarised. In London rents have on the whole decreased during the last seven years. Of the remaining seventy-seven towns under review, forty-five show increases varying from 1 to over 10 per cent.; in seventeen there was no change; and in the remainder there have been decreases from 1 to 10 per cent. Combining all the details, the Report proceeds to establish the general result of a decrease of 0·3 per cent. for the whole country in the period 1905-1912. That is to say, rents have changed but little.

Far otherwise is the verdict as regards retail prices. Here there has been a material increase in the period between the two enquiries. The commodities that have been listed for the purpose of the report included bread, flour, potatoes, meat, bacon, eggs, milk, butter, cheese, tea, sugar, and coal—a fairly representative group, seeing that it has been estimated that probably three-quarters of working-class expenditure on food is in respect of these items.

One or two facts of interest in connection with these commodities are worthy of note. The cheese largely consumed by the working classes is mostly of the Canadian variety; the eggs are usually of foreign origin; the commonest form of sugar to be met with is white granulated; and while Danish bacon predominates in London and the South-East of England, American bacon is most frequent in the Northern counties and the Midlands.

As in the case of rents, so also in that of general prices,

Macclesfield would appear to be the cheapest town to live in. On the whole, prices are higher in Scotland than even in London, where they are higher than in the rest of the country. But when the rise between 1905 and 1912 is compared for different geographical areas, Lancashire and Cheshire, Wales and Monmouth, and Ireland show the highest mean percentage increase, and the Southern counties the lowest. But the difference is not very great. The only exception is in the case of tea, for which there has been a general fall all over the country.

The cost of clothing shows the same tendency as that of the necessities of life. On the basis of the 1905 prices = 100, the cost of bespoke clothing in 1912 was 112·1; of ready-made clothing 109·3; and of underclothing 114·6.

Combining rents and retail prices, we find that London has a higher index-number than any other town in the United Kingdom, and next to London comes Croydon. The town standing lowest on the list is Macclesfield. Finally, the percentage of increases between 1905 and 1912 in the towns considered as a whole show the following figures: Rents have increased 1·8 per cent. (this is exclusive of London); retail prices 13·7 per cent.; rents and retail prices combined 11·3 per cent. Details for the various geographical groups are given in the following table:—

PERCENTAGE CHANGES IN RENTS, RETAIL PRICES, AND RENTS AND RETAIL PRICES COMBINED—GEOGRAPHICAL GROUPS.

Geographical Group.	No. of Towns included.	Mean Percentage Increase (+) or Decrease (-) in		
		Rents.	Retail Prices.	Rents and Retail Prices Combined.
London } Middle Zone ...	1	-4·0	+12·0	+9·0
London } Inner „ ...		-6·0	+12·0	+8·0
London } Outer „ ...		-2·0	+10·0	+8·0
Northern Counties and Cleveland ...	9	+0·7	+13·2	+10·7
Yorkshire (except Cleveland)	10	+1·3	+14·0	+11·5
Lancashire and Cheshire ...	17	+3·4	+15·8	+13·3
Midlands ...	14	+0·4	+14·4	+11·6
Eastern and East Midland Counties ...	7	+3·1	+12·4	+10·5
Southern Counties ...	10	+1·2	+9·8	+8·1
Wales and Monmouth ...	4	+4·3	+15·0	+12·9
Scotland ...	10	+1·9	+13·1	+10·9
Ireland ...	6	+1·2	+15·0	+12·2

The value of these conclusions would have been enormously increased if we had been supplied with a full consideration of the changes in the rates of wages during the period. The three industries dealt with in the Report, though fairly representative, are not in themselves sufficient for any useful comparison with the movement in the cost of living.

But if the Report is not full on this head, it contains (in the Appendix) ample material in reference to the course of prices in the principal foreign countries (France, Germany, the United States, Austria-Hungary, Belgium, Holland, Japan, Russia, Norway, and Italy) and in Canada, New Zealand, and Australia. The following table of index-numbers of food prices is reproduced from this section:—

Country.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
United Kingdom	100	100	101	103	102	103	103	105	103	108	109	109	115
Austria ...	100	100	99	101	105	108	113	113	118	120	126	128	135
Hungary ...	100	101	102	103	111	122	118	123	128	131	129	137	—
Belgium ...	100	101	102	118	109	110	112	115	116	120	122	128	132
France ...	100	100	95	98	90	97	95	100	102	100	101	117	115
Germany ...	100	103	106	105	105	114	118	116	116	124	127	128	130*
Holland ...	100	100	100	102	103	102	103	105	107	109	115	117	123
Italy ...	100	100	99	99	97	99	99	101	105	112	114	118	120
Norway ...	100	100	99	99	97	100	103	108	109	106	108	111	119
Russia ...	100	104	107	102	104	112	116	130	130	127	116	121	—
United States	100	105	111	111	113	113	117	122	126	133	140	139	—
Japan ...	100	97	100	108	120	129	127	134	136	132	132	138	—
Canada ...	100	104	109	106	109	111	115	128	129	133	135	136	151
Australia ...	—	100	109	105	95	101	101	98	106	104	103	108	116
New Zealand	100	101	109	109	102	107	107	112	117	108	110	116	—

* Baden only: figures for the remaining States not yet being available for this year.

M. EPSTEIN

Board of Trade Report on Changes in Rates of Wages and Hours of Labour in the United Kingdom in 1912. [C'd. 7080.] 1913. Price 11½d.

THE Report states that the net weekly amount of the advance in 1912 was £139,000 distributed among 1,818,000 workpeople, that is to say, an average increase of 1s. 6d. a week. "After a period of depression in 1908 and 1909, wages began to rise in sympathy with the improvement in trade and employment, but the movement was somewhat slow until about May, 1912. After that date, however, the movement became more rapid, with the result that the number of workpeople whose wages were reported as increased during 1912 was in excess of that for any previous year, while the aggregate amount of the net weekly increase was exceeded twice only during the past twenty years, namely, in 1900, and 1907—both years of exceptional prosperity." It

appears that, as regards the workpeople covered by the returns dealt with in this Report, about $2\frac{1}{2}$ million workpeople have, since 1893, had their recognised working time per week reduced by nearly 6 million hours. This has been mainly due to legislative changes affecting about half a million underground miners and over one million textile factory operatives.

Board of Trade Report on Strikes and Lock-outs and on Conciliation and Arbitration Boards in the United Kingdom in 1912. [Cd. 7089.] 1913. Price 10½d.

THIS Report covers the period of the National Coal Strike.

Tables Showing for Each of the Years 1900-1912 the Estimated Value of the Imports and Exports of the United Kingdom at the Prices Prevailing in 1900. [Cd. 6782.] 1913. Price 3½d.

THE prices of imported foods rose sharply in 1912, while those of imported raw materials again fell. On the whole the prices, both of imports and exports, rose by about 2 per cent. The movements in prices since 1900, on the whole substantially adverse to this country, are shown in the following table:—

	Average Prices of		
	Imported Articles of Food.	Total Net Imports.	Total Exports of Home Produce.
1900	100·0	100·0	100·0
1901	99·5	96·7	95·2
1902	99·6	95·6	90·8
1903	99·5	96·9	90·7
1904	98·3	97·3	91·3
1905	101·1	97·7	91·6
1906	100·6	101·8	97·1
1907	105·2	106·5	101·9
1908	107·5	102·5	98·0
1909	110·7	103·6	94·3
1910	111·8	109·5	98·4
1911	110·4	106·8	100·1
1912	116·8	108·8	102·0

Report of the Local Government Board, 1912-1913. Part I. Administration of the Poor Law, the Unemployed Workmen Act, and the Old Age Pensions Act. [Cd. 6980.] 1913. Price 1s. 4d.

THE number of pensioners in England and Wales on the 28th March, 1913, was 668,646, and the total number in the

United Kingdom was 967,921, made up of 363,811 men and 604,110 women. This is an increase in the number since 1912 of 4 per cent. in England and 2·7 per cent. in the United Kingdom as a whole.

Memoranda in Reference to the Working of the Trade Boards Act. 1913. (H. of C. 134.) Price 3d.

To be reviewed.

First Report on the Proceedings of the Board of Trade under Part II. of the National (Unemployment) Insurance Act, 1911. 1913. [Cd. 6965.] Price 9d.

REVIEWED above (p. 627)

Report of the Select Committee on the Wages and Conditions of Employment of Post Office Servants. 1913. (H. of C. 268.) Price 2s. 4d.

To be reviewed.

Returns of the Capital, Traffic, Receipts, and Working Expenditure of the Railway Companies of the United Kingdom for the year 1912, with a general report thereon and summary tables for a series of years. 1913. [Cd. 6954.] Price 1s. 3d.

THE new Act, governing the form of the accounts and statistics furnished by railway companies, has now come into force; and the above is, therefore, the last of these Annual Returns prepared under the old conditions.

Return showing (a) in what foreign countries and British Possessions the Railways have been in whole or part either built or acquired by the Government; (b) the cost of building or acquisition; (c) the financial results. 1913. (H. of C. 287.) Price 7½d.

A VERY useful return relating to the countries of the British Empire and to forty-two foreign countries, prepared by the Commercial Department of the Board of Trade.

Report of the Treasury Committee on the Mode of Issuing the Dollar in the East. 1913. [Cd. 6973.] Price 1½d.

THIS Report deals with the best method of remitting dollars to out-of-the-way places where they are required for payments by the Foreign Office, the War Office, or the Admiralty.

Interim Report of the Royal Commission on Indian Finance and Currency. With one volume of Minutes of Evidence, two volumes of Appendices, and General Index. 1913. [Cd. 7068-7072.] Price $\frac{1}{2}$ d. + 2s. 10d. + 2s. 10d. + 2s. 5d. + 6d.

THIS interim report is no more than a covering paper to the evidence and other papers heard and received during the summer. The greater part of the two volumes of appendices is taken up with official papers put in by the India Office in explanation of the existing system.

Review of the Trade of India in 1912-13. 1913. [Cd. 6960.] Price 1s. 1d.

THIS annual statement contains the analysis of foreign trade, taken both at the actual prices and at the prices of former years, which has formerly been published separately. The index-number for Indian rupee prices in 1912 shows that the great fall that took place in prices of food grains between 1908 and 1911 was followed by a considerable rise in 1912. The level of food prices in this year, however, was still below that of 1909. Textiles, on the other hand, in 1912, as in 1911, were much higher than in the three years preceding. Sundry materials were also somewhat higher than in former years. The total result is to bring the index-number, which is a simple arithmetic mean of the prices of thirty-nine commodities, back to what it was in 1908, the general averages for the five years 1908-1912 being 139, 124, 122, 129, and 139 respectively.

Statistical Abstract relating to British India from 1902-3 to 1911-12. 1913 [Cd. 7078.] Price 1s. 3d.

Statistical Abstract for the United Kingdom in each of the last fifteen years from 1898-1912. 1913. [Cd. 7022.] Price 1s. 11d.

Index to Consular Reports on Trade and Subjects of General Interest, 1912. [Cd. 7102.] 1913. Price $\frac{1}{2}$ d.

THIS Index serves to increase very greatly the value of Consular Reports, which are very numerous, and do not necessarily come to the notice of all who would be interested in their contents. There is an Appendix giving a list of the Reports indexed and also the price of each Report.

Official Year-Book of the Commonwealth of Australia: Statistics for the period 1901-1912. Melbourne. 1913.

THE sixth issue prepared by the Commonwealth statistician, Mr. G. H. Knibbs. This very valuable compilation contains a large amount of descriptive matter as well as statistics. In this issue special attention is devoted to labour and industrial statistics.

Erhebung über Arbeitsnachweise im Deutschen Reich nach dem Stande von Ende, 1912. Berlin 1913.

THIS is the supplement for June, 1913, to the *Reichsarbeitsblatt*, the Journal of the German Labour Department. It comprises a report on the state of the labour exchanges, private and semi-private, at present existing in Germany. Of the 2,224 labour exchanges which were investigated, 418 stated that they received regular financial assistance from public authorities. The data, which it proved possible to obtain, do not appear to be very exact.

CURRENT TOPICS

A CORRESPONDENT writes:—"The meeting of Section F (Economic Science and Statistics) of the British Association at Birmingham (September 11-17) showed an improvement in several ways on its immediate predecessors. There was a very fair muster of economists. Local members took a full part in attendance and discussion, while there were few of those star turns which, though they may attract numbers, disarrange the time-table and discourage debate. On the last day, when the Professor of Finance in Birmingham University read his paper on the Economic Effects of the Panama Canal, the attendance was nearly as full as on the first day. In fact, there was an average attendance of about a hundred members throughout the meeting. The ground covered is indicated by the programme:—

Thursday, September 11.

1. Presidential Address by REV. PHILIP WICKS REED.
2. Discussion on Trade Unions and Co-Partnership—Papers by DR. CHARLES CARPENTER and MR. JOHN B. C. KEESHAU.
3. PROF. C. H. OLDHAM—The Scientific Study of Business Organisation.

Friday, September 12—Discussion on Inland Waterways:—

1. LORD SHUTTLEWORTH—The Improvement and Unification of Inland Waterways (read by MR. NEVILLE CHAMBERLAIN).
2. SIR JOHN PURSER GRIFFITH—Some Reasons why the State should improve the Canals and Waterways of the United Kingdom.

3. MR. FRANK R. DURHAM—The Waterways of France, Belgium, and Germany.
4. MR. R. B. DUNWOODY—Inland Waterways in England.
5. MR. W. M. ACWORTH—A forward Canal Policy—its economic justification (read by PROFESSOR CANNAN).

Monday, September 15—Discussion on Prices and the Cost of Living :—

1. DR. A. L. BOWLEY—The Relation between the Changes of wholesale and retail prices of Food.
2. MRS. FRANCES WOOD—The Construction of Index Numbers to show Changes in the principal Articles of Food for the Working Classes.
3. MISS CECILE MATHIESON—Working-class expenditure in Birmingham.
4. MR. W. H. WHITELOCK—The Industrial Credit System and Imprisonment for Debt.
5. MR. LEONARD HILL—Economics and Food Values.

Tuesday, September 16.

1. PROF. MUIRHEAD—The Economic Order.
2. DR. W. R. SCOTT—Modifications of Diminishing Utility.
3. MR. A. J. KENNY—How far are Mathematical Methods really of use in Economic Science?
4. MR. SAMUEL T. WILSON—Some Effects of Compulsion on the Economics of Sickness Insurance.

Wednesday, September 17.

1. PROF. A. W. KIRKALDY—Some of the Economic Effects of the Panama Canal.
2. MR. F. TILLYARD—English Town Development in the Nineteenth Century.
3. MR. C. REGINALD ENOCK—Human Geography and Industry Planning.

"In the discussion on canals, the canal authorities, statisticians and engineers, occupied the greater part of the time, but the paper by Mr. Acworth (read and replied for by Professor Cannan) was sufficient to maintain the balance. At the close the general sense of the meeting seemed to be that, while the canals might with justice demand the creation of a waterways board having power to enforce through rates and organise the system, the financial propositions should be developed gradually and conditionally upon large contributions to the capital outlay from the areas primarily benefited.

"The discussion on Prices and the Cost of Living showed the high level at which a statistical debate can be maintained in the right hands. Rather unusually, the charts enabled the audience to comprehend better the points under examination. Material such as that supplied by Miss Mathieson was just the kind of contribution most worth having from the locality in which the Association meets. The same applies to the papers on allied subjects by Messrs. Whitelock and Tillyard. Pure theory came up at times, and everybody, it seemed, was heretic—a contrast, truly, to the iron creed of an earlier generation. The President gave the lead, throwing the science back for its origins on to the broad, if slippery, back of psychology, and concluding with a demolition of the well-worn apparatus which has so often served

for an explanation of rent and of the conditions of supply. Cobbett's herring was taken with relish by the audience, female as well as male.

"Next year the Association goes to Australia."

A CORRESPONDENT writes:—Recent economic and social tendencies in France have been responsible for the adoption by the French Government of a somewhat novel policy—the granting of assistance to large families. Among other causes the following have been mentioned as having contributed to bring about this result—the high cost of living, the lack of housing accommodation, the declining birth-rate, and the increase in the period of compulsory military service from two to three years. The law was approved on July 14th, 1913, and its provisions are fairly simple. In the first place, a child is defined as a boy or girl up to the age of thirteen. Every head of a family having to care for more than three children, legitimate or recognised, and being in straitened circumstances, shall be entitled to receive an annual grant in aid of not less than 60 nor more than 90 francs per annum for each additional child beyond the first three. If, however, the children are under the care of their mother by reason of the death or disappearance of the father, the relief shall be given for every child beyond the first. In the same way relief shall be granted for every child beyond the second if the mother has died or disappeared. Finally, children between the ages of thirteen and sixteen for whom either parent has signed a contract of apprenticeship are to be regarded as children under thirteen for purposes of the Act. The amount of the allowance is to be determined in each case by the municipal authority, subject to the approval of the Ministry of the Interior, and is to be paid monthly and in advance. The necessary funds will be contributed by the central government, the communes, and the departments.

ALL this will mean more money for the needs of the State. The increased period of military service will only add to the burden. Consequently, while hitherto France has been one of the Great Powers whose system of taxation did not include income tax, a proposal has now been made to have recourse to this source of revenue. A Bill is at present before the Budget Committee of the Chamber of Deputies, and one or two of the details are interesting. Incomes to be taxed are such as are derived from land and buildings and from securities, callings, professions, or occu-

pations. Every taxpayer whose income is less than 20,000 francs will have the right of deducting from it 1,000 francs for each person dependent upon him, these being either aged parents or relatives over seventy who are without means of their own, or children under sixteen. Incomes under 5,000 francs will be tax free. Those over this amount will be taxed on a graduated system as follows :—

Per cent.	On Incomes between	Per cent.	On Incomes between
1	5,000—10,000 fr.	5½	30,000—50,000 fr.
2½	10,000—15,000 „	6	50,000—100,000 „
3½	15,000—20,000 „	6½	100,000—200,000 „
4½	20,000—25,000 „	6½	200,000—500,000 „
5½	25,000—30,000 „	7	over 500,000 „

Furthermore, unmarried persons over thirty years of age are to pay on their revenue a surtax of 20 per cent. of the above-mentioned rates.

AN Oxford correspondent writes :—“The proposal to establish at Oxford a ‘Diploma in Commerce and Economics’ for members of the University ‘intending to pursue a business career’ was at the last moment, and rather unexpectedly, killed by its friends. At a Convocation held on Tuesday, November 11th, Mr. Sidney Ball, speaking on behalf of the promoters of the proposal, explained that the amendment introduced into the statute by Congregation limiting the Diploma to candidates who had taken the B.A. degree had rendered the statute unworkable and made it a contradiction in terms. The character of the proposal had been completely altered, and it would be difficult, if not impossible, to adapt the original framework of the statute to what was essentially a new proposal. It was a proposal, moreover, which would limit the Diploma to an almost negligible quantity of candidates, while the teaching required for the Diploma course would cost the University a very considerable annual sum. The Diploma was devised in response to one of the suggestions made in the Chancellor’s letter on the *Principles and Methods of University Reform*, though the actual proposal was formed on rather less comprehensive lines than the Chancellor himself had indicated. It cannot be said that the proposal commended itself to a wide section of the University: it was generally felt that the liberal education provided by the ordinary courses of the University was in itself the best training for business as for other professions, and that, in any case, it was difficult to devise a

course which would really fall within the proper limits of University teaching. On the other hand, the active opponents of the statute were not numerous, and had so far failed to make any impression on the fortunes of the statute, that, but for its friends coming to their rescue at the eleventh hour, they would hardly have availed to throw it out. The rejection of the present statute does not therefore mean so much the abandonment of the proposal as its reconsideration. In the meanwhile the existing Diploma in Economics and Political Science provides an excellent basis for further development on lines specially appropriate to persons intending to pursue a business career and probably this is the best and safest line of advance, more particularly as the Diploma is allowed to count for the purposes of a degree."

In this connection, attention may be called to the work of the Oxford Social and Political Studies Association, of which Mr. Sidney Ball is chairman, Professor W. G. S. Adams secretary, and Professor Geldart treasurer. It has recently started a scheme of training for social work, intended primarily for students who have made or are making, a study of social and economic theory and history, such as is provided by the diploma course in economics and political science. The course of training consists of two parts: first, the study and observation at Oxford, for a period of not less than three terms, of the organisation and working of certain local institutions such as the City Council, the Labour Exchange, the Charity Organisation Society, and the Poor Law Guardians; and second, an inquiry of a specified character carried out in vacations elsewhere than at Oxford, and a written report on its result. During the past term a series of public lectures have been given at St. John's College by well-known experts on various departments of social and civic work. Great stress is laid upon clinical work. This term, for instance, students have paid visits to some municipal schools, as well as to meetings of the City Council and of the Poor Law Guardians."

An association has been formed in Canada, under the title of the Canadian Political Science Association, as "a national society for the full and free discussion of Canada's political and economic and social problems." Similar organisations in the United States, where they have played a notable part for a quarter of a century past, include many Canadians among their members. In December, 1912, therefore, advantage was taken of the fact that an unusually large number of Canadians were in attendance

at the Boston meeting of the American Economic Association, to discuss the organisation of a Canadian society. The first annual meeting was held at Ottawa early in September, when numerous papers were read on the aims of the Association and on various Canadian economic problems. Prof. Adam Shortt, of Ottawa, has been elected as the first President, Prof. James Mavor, of Toronto, as a Vice-President, and Prof. O. D. Skelton, of Kingston, as Secretary-Treasurer. Dr. James Benar and Prof. G. I. H. Lloyd are amongst the members of Council.

Appointments, etc.—Professor S. J. Chapman has gone to South Africa at the invitation of the Government of the Union of South Africa to act as Chairman of a Commission which is to inquire into wages, working hours, and cost of living in various towns, and also into the question of a minimum wage. The Commission was primarily appointed on account of the recent troubles on the Rand, but it is also visiting a number of other districts, including Pietermaritzburg, Durban, East London, Alice, and Port Elizabeth. Professor Chapman left England in September, and expects to return about the middle of January.

Mr. C. J. Hamilton, who was Secretary to the Royal Economic Society from 1906 to 1912, has been appointed to the Minto Chair of Economics in the University of Calcutta. Mr. Hamilton has been acting as Lecturer in Economics at "Wren's," and held last year the Dunkin Lectureship at Mansfield College, Oxford.

RECENT PERIODICALS AND NEW BOOKS.

The Quarterly Review.

OCTOBER, 1913. *The Financial Difficulties of Federalism.* EDGAR CRAMMOND. *The Vagaries of Recent Political Economy.* PROF. J. S. NICHOLSON. A review of recent works, especially Mr. Wicksteed's "Commonsense of Political Economy," and Prof. Pigou's "Wealth and Welfare," which are criticised adversely. *Indian Progress and Taxation.* LORD CROMER. *Profit-sharing.* PROF. W. J. ASHLEY. A study of the Board of Trade Report (1912), and other recent works.

The Nineteenth Century.

DECEMBER, 1913. *A Minimum Wage for Agriculture.* PROF. A. C. PIGOU.

Economic Review.

OCTOBER, 1913. *On some Fundamental Notions of Economics.* J. A. SMITH. A criticism of Marshall's definition of wealth. Prof. Smith would prefer to define an "economic good" as being "whatever is the end or aim of non-ethical volition." *The Ownership of Capital.* SIR BENJAMIN FROWNE. Brief reflections on the relations of capital and labour. *The Census of Production and Labour Propaganda.* J. C. PRINGLE. *Old Age Pensions.* C. F. ROGERS. Illustrated by C.O.S. Cases. *Economic Conditions in North-West Canada.* PROF. HUMFREY MICHELL.

Bankers' Magazine.

OCTOBER, 1913. *Callable Capital in Banks.* A discussion of the wisdom of reducing the uncalled liability in English Joint-Stock Banks.

NOVEMBER, 1913. *Report of Bank of the Netherlands, 1912-1913.*

DECEMBER, 1913. *Hongkong and Shanghai Banking Corporation.* The opening of this bank's new London office is made the occasion of some account of its progress.

Women's Industrial News.

OCTOBER, 1913. *The Case of the Sub-Postmaster's Assistant.* MRS. BERNARD DRAKE. *Labour Laws for Women and Children at Home and Abroad.* ANNE B. PAGE. A synopsis of the provisions of the laws of various countries.

Clare Market Review.

- NOVEMBER, 1913. *The Telegraph Messenger and the Vanboy.* N. B. DEARLE. On some attempts to diminish "blind alley" labour. *Some Branches of the British Library of Political Science.* VII. *The United States Government Publications.* H. A. FUNNELL.

Liverpool Economic and Statistical Society.

- TRANSACTIONS, 1912-13. *Social Statistics of Netterfield Municipal Ward (Liverpool).* F. G. D'AETH. *The Housing Problem.* C. A. SHERLOCK. *The Problem of Federal Finance* EDGAR CRAMMOND.

The Eugenics Review.

- JULY, 1913. *The effect of economic conditions on the birth-rate.* W. C. MARSHALL. *French Commission on Depopulation.* H. ONSLOW.
- OCTOBER, 1913. *Depopulation and Eugenics.*—I. LUCIEN MARCH.

International Review of Commerce and Industry.

- DECEMBER, 1913. This is the first issue of a new monthly (price 2s. a number, or £1 1s. a year), under the editorship of Mr. T. Swinborne Sheldrake. Its object is to deal "with international commerce and industry," and it will be primarily written "for the principals of great commercial firms having business interests in all parts of the world." Personal paragraphs and disguised advertisements are to be rigorously excluded. Most of the articles are short. *Monthly Notes on Commercial Conditions.* *Commerce and the Universities.* W. J. ASHLEY. A suggestion to English business men that "the time has now come when it will be worth while, even for them, to take 'higher commercial education' a little more seriously." *Trade Routes as they will be affected by the Panama Canal.* W. L. LIVINGSTON. *Oil Fuel.* A. J. LIVERSEDGE.

Quarterly Journal of Economics (Harvard).

- AUGUST, 1913. *Marginal Utility and Marginal Disutility as ultimate Standards of Value.* C. E. PERSONS. Utility and Disutility are regarded as alternative standards. *The Commodity Clause Legislation and the Anthracite Railroads.* ELIOT JONES. *Original Cost versus Replacement Cost as a Basis for Rate Regulation.* H. V. HAYES. By a former chief engineer of the American Telephone and Telegraph Company. *The Marginal Productivity versus the Impatience Theory of Interest.* HARRY G. BROWN. A criticism of Prof. Fisher's "Impatience," or "Time Preference" Theory. *Pigou's Wealth and Welfare.* ALLYN A. YOUNG. *Railway Rates and Joint Costs.* PROSS. PIGOU and TAUSSIG. A continuation of this controversy.

The American Economic Review (Boston).

- SEPTEMBER, 1913. *A Classification of Pools and Associations based on American Experiences.* W. S. STEVENS. With interesting

examples. *Possible Complications of the Compensated Dollar*. J. M. CLARK. By a friendly critic. *Monopoly and Competitive Prices*. E. E. AGGER. A criticism of a pamphlet by Prof. Hicks. *The Impatience Theory of Interest*. IRVING FISHER and H. R. SEAGER. The continuation of a controversy.

Political Science Quarterly (New York).

SEPTEMBER, 1913. *Regulation of State Taxation*. F. J. GOODNOW.
Development of Syndicalism in America. LOUIS LEVINE.

Annals of American Academy (Philadelphia).

SEPTEMBER, 1913. A series of articles on *The Negro's Progress in Fifty Years*.

Journal of Political Economy (Chicago).

OCTOBER, 1913. *Money and Prices*.—I. I. D. MAGER. "A Statistical Study of Price Movements." An Analysis of the *Crisis Cycle*. MCKNIE THROOP ENGLAND. The author's general conclusion is that the primary movements are: increased promotion activity, expansion of credit, rise of prices; decreased activity in promotion, contraction of credit, fall of prices. *The Recent History of Immigration and Immigration Restriction*. B. F. HALL.

Bulletin of the U.S. Bureau of Labour (Washington).

No. 116. *Hours, Earnings, and Duration of Employment of Wage-earning Women in Selected Industries in the District of Columbia*.

No. 119. *Working Hours of Women in the Pea Canneries of Wisconsin*.

No. 120. *Hygiene of the Painters' Trade*.

No. 121. *Sugar Prices from Refiner to Consumer*. Discusses, chiefly with reference to New York City, the relation between the price of raw sugar and the price to the consumer for granulated sugar, and the cost added to this price as it passes through various hands from the refiner to the consumer.

No. 122. *Employment of Women in Power Laundries in Milwaukee*.

No. 123. *Employers' Welfare Work*. An account of what is done for their employees by various American firms.

No. 124. *Conciliation and Arbitration in the Building Trades of Greater New York*.

No. 125. *Retail Prices, 1890 to April, 1913*.

No. 128. *Wages and Hours of Labour in the Cotton, Woollen, and Silk Industries, 1890 to 1912*.

No. 129. *Wages and Hours of Labour in the Lumber, Millwork, and Furniture Industries, 1890 to 1912*.

No. 131. *Union Scale of Wages and Hours of Labour, 1907 to 1912*.

No. 132. *Retail Prices, 1890 to June, 1913*.

Revue d'Economie Politique (Paris).

SEPTEMBER-OCTOBER, 1913. *Art technique et Economie politique*. E. SCHWILAND. *Comment expliquer les mouvements de la*

population humaine. C. TURGEON. Concluded. *Les Causes démographiques de l'expansionisme colonial italien.* R. MICHELS.

Journal des Economistes (Paris).

AUGUST, 1913. *Définition, caractère et indices des crises.* YVES GUYOT. *Le système monétaire de l'Argentine et les organes de la circulation.* G. LAFOND. *Les premiers résultats de la nouvelle loi anglaise d'assurance sociale.* M. BELLOM. Continued in September.

SEPTEMBER, 1913. *La Marine marchande grecque.* A. ANDRÉADES. Continued in October. *La Serbie au lendemain de la guerre.* A. MUZET.

OCTOBER, 1913. *M. Emile Levasseur.* A. DESCHAMPS. *Les Finances des villes au début du 20^e siècle.* P. LÉGIS. With reference to France.

NOVEMBER, 1913. *Le Ministère des Terres et M. Lloyd George.* YVES GUYOT. *Le Conflit économique franco-allemand.* MAURICE AJAM.

Revue Economique Internationale (Brussels).

AUGUST, 1913. *L'Evolution des lois Européo-Américaines en matière d'accidents du travail.* P. PIC. *L'Organisation du Système monétaire en Turquie.* A. ILLITCH. A summary account of the existing position, and of what reforms have been proposed. *L'Industrie cotonnière en Italie.* E. KRUMME. *Les cours du fret en 1912.* P. HERMITE.

SEPTEMBER, 1913. *La Coopération en Angleterre.* CLAUD W. MULLINS. *Les Associations coopératives en Allemagne.* H. CRÜGER. *Le mouvement ouvrier jaune.* CL. HEISS. *Enquête sur le mouvement de quelques prix en Espagne pendant un siècle.* ANDRÉ BARTHE.

OCTOBER, 1913. *Les nouveaux progrès de l'Emigration Britannique.* RENÉ GONNARD. *Les Réformes agraires et l'évolution des classes rurales en Russie.* P. CHASLES. *Cinquante années de la vie d'une banque viennoise (1863-1913).* CH. MORAWITZ. An account of one of the earliest English foreign banks—the Anglo-Austrian Bank.

Archiv für Sozialwissenschaft und Sozialpolitik (Tübingen).

SEPTEMBER, 1913. *Die Burekruktisierung und die gelbe Arbeiterbewegung.* ALFRED WEBER. *Der Syndikalismus in England.* (60 pp.) C. K. OGDEN. A substantial account of current English opinion. *Die allgemeine Teuerung im Lichte der Nationalökonomie.* LUDWIG VON MISES.

Schmoller's Jahrbuch (Munich).

PART 4, 1913. *Die Emissionsstatistik in Deutschland und einigen ausländischen Staaten.* M. MARX. A useful collection of material relating to new issues of capital. *Die Noten der Niederländischen Bank. Ein Beitrag zur Frage der Ausgabe kleiner Noten.* C. EISFELD. *Zur Frage der Lebenshaltung des Mittelstandes.* A. GÜNTHER. *Die Konsumvereinswesen in Deutschland.* W. TITS.

Jahrbücher für Nationalökonomie und Statistik (Jena).

- MAY, 1913. *Die Leistungsfähigkeit und andere Gesichtspunkte bei Bemessung von Geldleistungen.* (73 pp.) HERBERT CONRAD. *Wirtschaftsverhältnisse und Wirtschaftsbeziehungen Indiens insbesondere zu England und Deutschland.* DR. KREUZKAM. A slight treatment of the obvious statistics.
- JUNE, 1913. *Der Rückgang der Geburten als soziales Problem.* H. FÜRTH. *Stand und Leistungen der französischen Städtestatistik.* J. MÜLLER. *Die Brotpreise in Berlin im Jahre 1912.* H. GURADZE.
- JULY, 1913. *Die Marx'sche Grundrententheorie. Ein Beitrag zur Dogmengeschichte der Grundrente.* G. ALBRECHT. *Die Arbeitszeit in der Grosseisenindustrie.* E. WISKOTT.
- AUGUST, 1913. *Die Entwicklung des deutschrussischen Getreideverkehrs unter den Handelsverträgen von 1894 und 1904.* F. BECKMANN. *Wirtschaft und Mode.* A. ELSTER. *Die Entwicklung des Preisniveaus und des Getreidebedarfs in Deutschland und England in den letzten Dezennien.* A valuable collection of tables.
- SEPTEMBER, 1913. *Der Subjektive Wert als Grundlage der Zins-theorie Böhm-Bawerks.* OTTO CONRAD. *Die Messe in Nischny-Novgorod.* VLADIMIR SEEGER. *Englische Wirtschaftsgeschichte.* G. BRONITZ. A critique of recent English contributions to English economic history.
- OCTOBER, 1913. *Privatwirtschaftslehre, Volkswirtschaftslehre, Wertwirtschaftslehre.* (50 pp.) KARL DIEHL. A discussion of the fields into which it is usual in Germany to divide economics.
- NOVEMBER, 1913. *Vermisste Folgen der deutschen Sozialversicherung.* A. FISCHER. *Das Wesen der Wirtschaft und der Ausgangspunkt der Nationalökonomie.* (50 pp.) ROBERT LIEFMANN. A further contribution to the discussions of Scope and Method, which are now occupying so large a place in German economic periodicals.

Annalen für Soziale Politik und Gesetzgebung (Berlin).

- PARTS I AND 2, VOL. III., 1913. *Fortgang und Tragweite der internationalen Arbeiterschutzverträge.* STEPHAN BAUER. *Zur Methode und Technik der Haushaltungsstatistik.* (75 pp.) WALTER SCHIFF. An important study in statistical method. *August Bebel als Sozialpolitiker.* HEINRICH BRAUN.

Giornale degli Economisti (Rome).

- SEPTEMBER, 1913. *Numeri Indici delle Condizioni economiche d'Italia.* S. MORTARA. While admitting that the impressions of the economist about the progress of a country may be as valuable as an average of index numbers, the eminent statistician has framed several such compound measures, utilising some seventeen indices of progress (population, foreign trade, output of coal, &c.), and variously combining these elements with weights inverse to variability. The measures agree satisfactorily. *Sulla dottrina matematica della dipendenza reciproca dei fatti economici.* DOM. G. BERARDI. A

philosophic disquisition. *Per un Sistema d'imposte sul reddito consumato*. N. TREVISONNO. A criticism of Professor Einaudi's recent advocacy of equality in taxation. (Turin: Bona, 1912.)

OCTOBER. *Il nuovo regime delle borse*. G. DEL VECCHIO. Referring to the new regulations of the Italian money-market. *L'importa unica sui Consumi non necessari* U. RICCI. On the postulate of equality in taxation and the consequence drawn from it by Fisher, Einaudi, Prato, and others. *Sulla Mortalità degli invalidi*. F. INSOLERA. A statistical study.

La Riforma Sociale (Turin).

AUGUST-SEPTEMBER, 1913. *La questione del Cambrio*. G. DEL VECCHIO. A searching enquiry into the relation between the state of the exchanges and the amount of the circulation during recent years in Italy. *I prezzi delle merci in Italia nel 1911*. ACHILLE NECCO. Prices in Italy for 1911 are compared with prices for other years and in other countries; showing a general rise since last century.

OCTOBER-NOVEMBER. *Il Canale di Panama*. A. GEISSER. A history of the construction and estimate of its consequences. *Di una nuova proposta per rendere più stabile il valore della moneta*. A. GRAZIANI. A criticism of Prof. Irving Fisher's project. *La produzione solfifera Siciliana*. FELICE VINCI. *La valorizzazione del Caffè nel Brasile*. E. DE PAOLA.

De Economist (The Hague).

SEPTEMBER, 1913. *De Curaçaosche Bank*.—III. G. J. FABIUS. Continued in October and November.

NOVEMBER, 1913. *De oudste Nederlandsche bevolkingsstatistiek*. W. S. UNGER.

NEW BOOKS.

English.

A Unionist Agricultural Policy. London: John Murray. 1913. Pp. 31. 6d. net.

[“By a group of Unionists.”]

ESTEY (J. A.). Revolutionary Syndicalism. London. P. S. King. 1913. Pp. xxxii + 212. 7s. 6d. net.

[With an introduction by Mr. L. L. Price. An attempt “to explain the theory and practice of the syndicalist movement in contemporary socialism.” To be reviewed.]

GIFFEN (SIR ROBERT). Statistics. London: Macmillan. 1913. Pp. xiii + 485. 12s. net.

[This posthumous work, written about the years 1898-1900 and left in a somewhat unfinished state, has been edited by Mr. Higgs and Mr. Yule. To be reviewed.]

GILL (CONRAD). The Naval Mutinies of 1797. Manchester: University Press. 1913. Pp. xix + 412. 10s. 6d. net.

[Of interest to economists on account of the close resemblance of these mutinies to the modern strike. Reviewed above.]

GORING (CHAS.). The English Convict: a statistical study. London: H.M. Stationery Office. 1913. Pp. 440. 6s.

[This elaborate study by the Deputy Medical Officer at the Parkhurst Prison has been published officially. With the assistance of other authorities, statistics have been collected during the last 10 years giving accurate biometrical measurements of a large number of prisoners convicted of similar offences. The results are chiefly negative. Contrary to what has been maintained by some writers, the author comes to the conclusion that, “as individuals, criminals possess no characteristics, physical or mental, which are not shared by all people.”]

GREENWOOD, (ARTHUR). The Health and Physique of School Children. London: P. S. King. 1913. Pp. xv + 96. 1s. net.

[A publication of the Ratan Tata Foundation.]

HAWTREY, (R. G.). Good and Bad Trade: an inquiry into the causes of trade fluctuations. London: Constable. 1913. Pp. viii + 279. 6s. net.

[This is a theoretical discourse in which great stress is laid on the fluctuations in the supply of money credit. Reviewed above.]

HOLLAND (BERNARD). The Fall of Protection, 1840-1850. London: Arnold. 1913. Pp. xi + 372. 12s. 6d. net.

[To be reviewed.]

JÓSEPH (LEOPOLD). The Evolution of German Banking. London: C. and E. Layton. 1913. Pp. 124. 3s. 6d. net.

[Four lectures delivered at the London School of Economics by the Manager of the London Office of the Swiss Bankverein. To be reviewed.]

KENNEDY (WILLIAM). *English Taxation A.D. 1640-1799: an Essay on Policy and Opinion.* London: G. Bell. 1918. Pp. ix + 199. 7s. 6d. net.

[Based on historical research carried out during the author's tenure of the Shaw Research Studentship at the London School of Economics. To be reviewed.]

KNOOP (DOUGLAS). *Outlines of Railway Economics.* London: Macmillan. 1913. Pp. xvi + 274. 5s. net.

[To be reviewed.]

LEHFELDT (R. A.). *The South African National Debt.* Cape Town: S. A. Association for the Advancement of Science. 1913. Pp. 11.

[An interesting pamphlet, reprinted from the *South African Journal of Science*, which contains some novel suggestions as to the treatment of Sinking Funds by developing countries, which are continually borrowing more (or new capital expenditure than they can pay off in respect of former loans.)

LLOYD (G. I. H.). *The Cutlery Trades.* London: Longmans. 1913. Pp. xvi + 498. 12s. 6d. net.

[An historical essay in the economics of small-scale production." To be reviewed.]

MACKAY (THOMAS). *The Dangers of Democracy: Studies in the Economic Questions of the Day.* London. 1913.

[A selection, edited with an Introduction by Sir Arthur Clay, of the articles contributed to the *Quarterly Review* by the late Mr. Thomas Mackay between the years 1894 and 1909. To be reviewed.]

O'FARRELL (HORACE HANDLEY). *The Franco-German War Indemnity and its Economic Results.* London: Harrison and Sons. 1913. Pp. x + 80.

[Published, with an introduction by Viscount Esher, by the Garton Foundation. A criticism of one of Mr. Norman Angell's contentions in *The Great Illusion*. To be reviewed.]

REDFERN (PERCY). *The Story of the C.W.S.: the Jubilee History of the Co-operative Wholesale Society, 1863-1913.* Manchester: The Co-operative Wholesale Society. 1913. Pp. viii + 489. 3s. 6d. net.

[The following pages . . . go beyond a formal record of events in C.W.S. history. They attempt a history of the principles also, viewed in relation to the larger world that environed their development." To be reviewed.]

SARKAR (PROF. JADUNATH). *Economics of British India.* Third edition, enlarged and partly rewritten. Calcutta: M. C. Sarkar and Sons. 1913. Pp. xii + 324. 5s. net.

[An earlier edition of this small text book was reviewed in the *Economic Journal* in September, 1911.]

SPALDING (W. F.). *Foreign Banking Appointments.* London: The Author. (22, Lightcliffe Road, Palmer's Green.) 1913. Pp. 28. 1s. net.

[This is described as an epitome of the conditions governing entry into the principal foreign and colonial banks, with some account of the prospects offered. It deals also with such questions as the cost of living, and should prove exceedingly useful for its purpose.]

• The Land: the Report of the Land Enquiry Committee. Vol. I. Rural. London: Hodder and Stoughton. 1913. Pp. lxxxiii+496. 1s. net.

[The Report of Mr. Lloyd George's unofficial Committee, with an introduction by Mr. Duke Adair, and an Historical Outline by Dr. Gilbert Slater. To be reviewed.]

• The Year-Book of Social Progress for 1913-14. London: Thomas Nelson. 1913. Pp. 595. 2s. net.

[“Being a summary of recent legislation, official reports, and voluntary effort, with regard to the welfare of the people.” The second issue of this very cheap annual.]

• WEBB (M. DE P.). Money Power for India. Working. The Oriental Institute. 1913. Pp. 25.

[Reprinted from the *Asiatic Quarterly Review*. Mr. Webb advocates a Gold Mint and a Gold Currency for India, partly for their own sake, partly in order to keep down the rise of prices, due to a superfluity of gold elsewhere. He is in favour of a State Bank for India, as distinguished from a Central Bank mainly in private hands.]

• WHEELEY (JAMES DAVENPORT). The Trade of the World. London: Chapman and Hall. 1913. Pp. 436. 9s. net.

[By an American writer, with numerous illustrations. To be reviewed.]

• WILLIAMS (ANEURIN). Co-Partnership and Profit-sharing. London: Williams and Norgate. 1913. Pp. 256. 1s. net.

[In the *Home University Library*. To be reviewed.]

• WILLIAMSON (J. A.). Maritime Enterprise, 1485-1558. Oxford: The Clarendon Press, 1913. Pp. 416. 14s. net.

[To be reviewed.]

American.

• DEIBLER (F. S.). The Amalgamated Wood Workers' International Union of America. Madison, Wisconsin. 1912. Pp. 211. 40 cents.

[“A historical study of Trade Unionism in its relation to the development of an industry.” A doctoral thesis, being No. 511 of the *Bulletin of the University of Wisconsin*.]

• HANEY (LEWIS H.). Business Organization and Combination. New York: The Macmillan Company. 1913. Pp. xiv+483. 8s. 6d. net.

[“An analysis of the evolution and nature of business organization in the United States and a tentative solution of the Corporation and Trust Problems.” To be reviewed.]

• LAYBER (ALMON WHEELER). Indian Slavery in Colonial times within the present limits of the United States. New York: Columbia University. 1913. Pp. 352. 12s. net.

[*Columbia University Studies*, LIV-3.]

• MITCHELL (WESLEY CLAIR). Business Cycles. Berkeley: University of California Press. 1913. Pp. xviii+616. \$5.

[A very large quarto, being volume iii of the *Memoirs of the University of California*. “This book offers an analytic description of the complicated processes by which seasons of business prosperity, crisis, depression, and revival come about in the modern world. The materials used consist chiefly of market reports and statistics concerning the business cycles which have run their course since 1890 in the United States, England, Germany, and France.” To be reviewed.]

MUENSTERBERG (HUGO). *Psychology and Industrial Efficiency*. Boston: Houghton Mifflin. 1913. Pp. vii + 321. \$1.00.

[To be reviewed.]

French.

AFTALION (ALBERT). *Les Crises périodiques de Surproduction*. Vol. I. Les variations périodiques des prix et des revenus: les théories dominantes. Vol. II. Les mouvements périodiques de la production: Essai d'une théorie. Paris: Marcel Rivière. 1913. Pp. xii + 317 + 418. Fr. 16.

[To be reviewed.]

CORNELISSEN (CHRISTIAN). *Théorie de la Valeur, avec une réfutation des Théories de Rodbertus, Karl Marx, Stanley Jevons, et Böhm-Bawerk*. Paris: Giard & Brière. 1913. Pp. 80. Fr. 10.

["Second Edition, thoroughly revised." To be reviewed.]

DORÉ (VALENTINO). *Le Marché des Céréales d'Anvers*. Rome. 1913. Pp. vi + 64.

[A publication of the *Institut International d'Agriculture*.]

ILITCH (ALEXANDRE). *Le Chemin de fer de Bagdad au point de vue Politique, Economique et Financier, ou l'Expansion de l'Allemagne en Orient*. Brussels: Misoh & Thron. 1913. Pp. 289.

[To be reviewed.]

TOUGAN-BARANOWSKY (M.). *Les Crises industrielles en Angleterre*. Paris: Giard & Brière. 1913. Pp. vii + 476. Fr. 12.

[Translated from the second Russian edition by J. Schapiro, and revised and augmented by the author. To be reviewed.]

German.

ADLER (KARL). *Bankpolitische Aufsätze*. Munich: Duncker & Humblot. 1913. Pp. 88. M. 1.

[A reprint of two essays.]

ENGELBRECHT (ERWIN). *Die Agrarverfassung des Ernlandes und ihre historische Entwicklung*. Munich: Duncker & Humblot. 1913. Pp. viii + 256. M. 6.50.

[Schmoller's *Forschungen*, Nq. 169.]

GERLACH (K. A.). *Theorie und Praxis des Syndikalismus*. Munich: Duncker & Humblot. 1913. Pp. 22. M. 0.60.

KULEMANN (W.). *Die Berufsvereine. Erste Abteilung: Geschichtliche Entwicklung der Berufsorganisationen der Arbeitnehmer und Arbeitgeber aller Länder*. Vols. 4, 5, 6. Berlin: Leonhard Simion. 1913. Pp. xxiv + 560 + vii + 551 + vii + 330. M. 30.

[Second revised edition of *Gewerkschaftsbewegung*, which was reviewed in the *ECONOMIC JOURNAL*, vol. x, p. 218. The first three volumes of the present edition were reviewed, vol. xix, p. 271. To be reviewed. The fourth volume deals with Great Britain and France and the countries of Northern Europe; the fifth volume with Southern Europe; and the sixth volume with other countries.]

KUMMANN (KARL). *Die Reichsarbeitslosenversicherung*. Tübingen: J. C. B. Mohr. 1913. Pp. viii + 150. M. 3.

[To be reviewed.]

LEXIS (WILHELM). Allgemeine Volkswirtschaftslehre. Second revised edition. Berlin: Teubner. 1913. Pp. 256. M. 7.

[The first edition was reviewed in the ECONOMIC JOURNAL for March, 1912, p. 75.]

MANN (J. K.). Die Vorgeschichte des Finanzsystems von John Law. Munich: Duncker & Humblot. 1913. Pp. 65.

[Reprinted from Schmolzer's *Jahrbuch*.]

MATARE (FRANZ). Die Arbeitsmittel Maschine, Apparat, Werkzeug. Munich: Duncker & Humblot. 1913. Pp. 214. M. 5.50.

[“Eine Abhandlung über ihren Einfluss auf den Industriebetrieb unter eingehender Berücksichtigung des Apparatwesens.”]

REINITZ (MAX). Das österreichische Staatsschuldenwesen von seinen Anfängen bis zur Jetztzeit. Munich: Duncker & Humblot. 1913. Pp. ix + 182. M. 5.

[To be reviewed.]

SELLA (EMANUEL). Der Wandel des Besitzes. Versuch einer Theorie des Reichtums als Organismus. Leipzig: Duncker & Humblot. 1912. Pp. 98. M. 2.50.

[Authorised translation from the Italian by Dr. Bluwstein.]

WEHBERG (HEINRICH). Die Bodenreform im Lichte des humanistischen Sozialismus. Munich: Duncker & Humblot. 1913. Pp. xii + 170. M. 5.

[On the occasion of the twenty-fifth anniversary of the foundation of the *Bund Deutscher Bodenreformer*. To be reviewed.]

WIETH-KNUDSEN (K. A.). Bauernfrage und Agrarreform in Russland. Munich: Duncker & Humblot. 1913. Pp. vi + 260. M. 8.

[To be reviewed.]

WILDEN (JOSEF). Neue Wege der Gewerbeförderung. Munich: Duncker & Humblot. 1913. Pp. 69. M. 2.

Italian.

SCHERMA (G.). Studio nel carattere economico della cooperazione. Palermo: Fiorenza. 1913.

STEFANI (A. DE). Velocità e giacenze delle monete. Venice: Ferrari. 1913.

